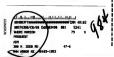


Think your top IT talent is staving out? Think again, Half your IT middle managers may be headed out the door when the economy improves. Some have already checked out, mentally. Here's what you can do about it. Page 47



HP Plans Thin-Client System With PC Blades

Sees new technology as PC replacement that could cut companies' desktop TCO in half

BY PATRICK THIRDOWALL Hondor Packert Co. las week detailed a plan to market thin-client systems based on PC blades, which it claims have the potential to replace up to half of the existing

desktops in midsize and larg-The PC blade system, called the HP Consolidated Client Infrastructure, will be avail-

able in March. It consists of a thin client connected to a dedicated rack-mounted blade in the data center. The blade will run Macrosoft Corp.'s Windows XP and use Transmeta Corn's Efficación

HP claims its PC blades can halve the total for desktops, which it puts at

about \$8,000 per

desktop costs. "We're corminly year driven to contraue to do more with what we

president of IT said he's considering PC blades to cut have and be able to support HP Blades, page 60

One company caving Po blades tu reduce deskrop

maker of Blue Bunny brand

The company already has

some thin clients attached to

servers, but Kim Norbs, vice

costs is Wells' Dairy Inc.

ice cream products in La

berspace depends on the in vestment and commitment of es you represent," he said.

Feds Say IT Security Lacking

Regulation likely if private sector doesn't protect infrastructure BY DAN VERTON

Secretary of

Homeland

Tom Ridge

warned the

IT industry

that the na-

tion's critical

ture presents

last work

Security



tive target for terrorists" - a target that his top cybersecurity advisors said will be protected by government regulation if the private sector fails to bolster security.

Speaking to more than 300 IT executives at the first National Cyber Security Summit here. Ridge said terrorist

erroune "know as do we that a few lines of code could ultimately wreak as much havor as a hundful of bombe Ridge encouraged the IT

industry and the private businesses that own and operate more than 85% of the nation's critical infrastructures to lead the nation's cybersecurity efforts, "The continued success of protecting our cy-

each of you and the business-Cybersecurity, page It

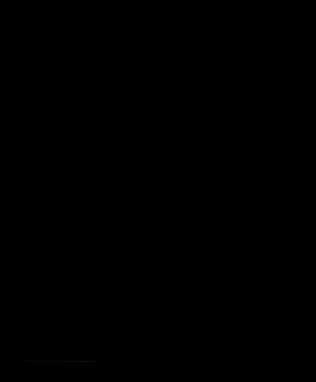
front late last month, when

Offshore Support Questioned

Vendors must balance | desire to reduce labor costs with contomor entidection user satisfaction with considerations desire to curb costs The issue came to the fore-

BY SDS BEEWIN Dell Inc. said it was returning Offshore technical support phone-based technical surservices have become a fact port for its corporate PCs to of life for more technology the U.S. because of comvendors and their customers. plaints from some users But both vendors and users about the quality of service last week said support operathey received from a call contions have to balance their

Support, page 16







The Canon Color imageRUNNER® C3200 with imageWARE™ Publishing Manager is anything but business as usual. Actually, it's a totally new way of working that lets you create and print professional-quality color booklets, catalogs. brochures...vou name it. In-house, right at your desktop. With imageWARE Publishing Manager, you can combine multiple documents created in different applications to form a single document.



and format chapters, renumber pages, insert headers and footers. You can apply editing, page imposition, print settings, and professional finishing. You can share it all with co-workers. You can manage it all every step of the way.



Canon's iman WARE Publishing Manager Softwa Crease and print color documents right from your desktop.

And we're just scratching the surface. This means no more endless waiting for that all-important document. See? At long last, you're in control. And ultimately, you're not stressing out. The Canon Color imageRUNNER C3200 with imageWARE Publishing Manager. For fast, affordable in-house color with professional-quality finishing. So say goodnight to business as usual.

> www.imagerunner.com 1-800-OK-CANON -



Faster than Verizon Faster than Sprint PCS. Faster than Cingular. Faster than T-Mobile. Faster than Nextel.



For the fastest way to open large e-mail attachments on a national wireless network, switch to AT&T Wireless.

It's a fact. No one offers a faster national wireless data network than AT&T Wireless with EDGE technology. No one. With average speeds of 100-130 Kbos, bursts of up to 200 Kbos and secure wireless access, you can browse the Internet as well as download presentations, documents and spreadsheets nearly twice as fast as with any other national wireless data network. We work with leading IT companies to help you get more out of the technology you use every day, across the U.S. High-speed national wireless data is here. And no one is faster at it than AT&T Wireless. Call 1 888-DATA-288 or go to attwireless.com/speed



Iccess the fastest national | I Corn e-mail attachments at ibvirage speeds of 100 - 130 Kbps



CONTENTS



Moving Data to the Mountain

In the Technology section: Once a limestone mine, Iron Mountain's underground facility was designed to protect corporate data from a nuclear blast. Today, its electronic data center helps effents comply with a spate of new regulations. Page 34



12.08.03

Windows Server 2003: Raising Shields

Also in the Technology section: Six mooths after its release, Windows Server 2003's early adopters give a thumbs up to new security features, but the overall security report card is mixed. Page 29

NEWS

- 6 Security group releases draft guidelines for defining the chief security officer role.
- 7 IBM hopes EMC's customers will switch to its storage products with the help of its Piper data migration technology.
- 7 MetApp forges alliances as part of a plan to offer software with its storage devices.
- 8 CA adds a Web services managreement tool to its Unicenter
- product line.

 10 The Pentagon is working with the private sector to develop common REID standards.
- 10 BPM tools offer many benefits, but rollouts can be challenging, users say.
- 12 Las Vegas public schools are rolling out a \$31 million backbone network and digital/IP phone system.
- 12 Start-up offers software for designing data center racks.
- 14 PeopleSoft is changing the pricing plan for J.D. Edwards products.
- 14 Patch management options proliferate in Blaster's wake.
 - 19 IT hiring plans for 2004 vary from company to company.
 - 22 BEA and IBM team up to work on new lava specs.
 - 60 Microsoft loosens up its policy for licensing its intellectual property.

TECHNOLOGY

- 36 Future Watch: The New internet. Scientists are working on the next generation of the Internet, which will be selfaware and able to automatically determine the best way to deliver data and services not to mention faster, more reliable and more secure.
- 40 Security Manager's Journal: Single Sign-on Effort Falls Short. Mathias Thurman's company merges its directories and moves toward single sign-on authentication, but implementing the system has some unexpected and un-

desired effects. MANAGEMENT 47 Already Gone. Recent surveys indicate that when the common c

- my improves, many IT middle managers may bolt out the door. Here's why — and what you can do about it. 50 The Pros & Coss of CMM. Offshore outsourcers tout their high Capability Maturity
 - Offshore outsourcers tout their high Capability Maturity Model ratings, yet many U.S. companies can't take advantage of such quality and can end up paying for more than they need.
- 52 Preventing P2P Abuse.
 University IT managers have become experts in combating the computer security and network-overload problems caused by peer-to-peer file swapping. Corporate IT managers can learn from their experiences.

OPINIONS

- On the Mark: Mark Hall cocounters a rare marketing bird — one who thought Comdex was a success. And will IBM continue to run Eclipse?
- 24 Maryfran Johnson knows there's loads of dissatisfaction among IT workers, but she has found two simple, lowcost ways to boost morale.
- 24 Pimm Fox believes it's possible to save precious network bandwidth and protect your organization from copyrightviolation problems.
- 25 Thornton A. May minces few words when chastising Microsoft and Sun for the "disconnects" that threaten the longterm value of IT.
- 44 Tommy Peterson suggests technologies to put on the next wish list you take to upper management.
 - 54 Bart Perkins says upstarts are undercutting big outsourcers. That's bad news for the giants, but it could mean falling prices for their clients.
 - 62 Frankly Speaking: Frank Hayes dismisses White House efforts to help IT secure systems, saying it's a lot of talk and little substance.

t Deadline Briefs
ews Briefs 8, 12
etters
Careers 56
ompany Index 59
ow to Contact CW
hark Tank

Ā

The Pathway to a

The Pathway to a Service-Oriented Architecture DEVELOPMENT: Four steps to realizing business benefits from Web services. O Busid by \$2984.

The Benefits and Risks of Mobility
MOBILE WINELESS: A checklist for meeting
the security challenges posed by handlelds
and other mobile devices. © Opinit in 12983

the security challenges posed by handhelds and other mobile devices. © Quieklais 42963 Keeping Vendors on Their Toes STORARE: Maintaining multiple propilers is a

STORAGE: Maintaining multiple suppliers is a good way to keep vendors on their toes and prices competitive, but what are the technical issues to be aware of? © Quinkink 42248

Security: An Executive Concern

SECURITY: Information security isn't just an IT master, it's also an organizational issue to be recknosed with at the executive level, says John De Santis, CEO of Sygste Technologies He calls for new measures that gauge network security. ** **Q usfeld, #42210**

Storage Gains Stature STORAM: The role of storage is evolving, especially in the wake of 9'll and recent financial scandals, says Marc Parley, president of Building Storage. © Outful in 42738

Driving Successful CRM Adoption software: Without user buy-in, even the best software can fall. Here's how to encourage employees to use the system you just installed. © Outol bit 43004

What's a Quintid laist?

Transplant such time of the Comparison of

ONLINE DEPARTMENTS Breeking News O Quicklank #1510 Hovestation

> Outed Link s2570 Outed Link s2570 Outed Link s2570

COMPETERMENT December 5 1001

Microsoft Corp. today plans to an nounce an ungrade of its CRM software that's designed to provide tighter security and simpl fied installation, Version 1.2 of Micronoft CRM also supports more rages and will be offered outside of North America for the first time, company officials said. The software is available in North America now and will be released denuders next month

Intel Sees Strong Revenue in OA

intel Corp. said it expects fourthquarter revenue to come in at the high and of the range it projected earlier in the ouarter. Citing strong microprocessor sales, Intel said business should total between SR 5 billion and SR 7 billion. However, the comp t. reserver, the company sed that it will take a \$600 millien charge to account for a reduction in the long-term growth forecast for its wireless network

Software AG Trims Development Focus

Darmetadt, Germany-hased Software AG said it's narrowing the focus of its software devel operations to two product lines in a cost-cutting move. The compa m will concentrate on XMI - based stepration tools and its mainframe software, which may be expanded through acquisitions, in on, technical support for the XML tools is being shifted from lecturery to India

Short Takes

YAHOO INC upgraded its instant messaging software to plug a er overrun security vulnerab ity that attackers could use to non malicious code en unprotected ms. . . . DELL INC. is offering a Linux distribution developed by Beiling-based Red Flag Software Co. on most models of the Power Edge servers it sells in China.

AT DEADLINE Guidelines Released Microsoft Upgrades To Craft CSO Position

lob requires understanding of a wide range of IT and other risks, group says.

KNOWLEDGE of information security risk management is inst one of the many skills that a chief security officer needs for crafting infloencing and directing an effective organizationwide protection strategy

Increasingly, the job also calls for an understanding of issues as diverse as emergency preparedness, crisis management and response physical security, disaster recoverability, and privacy and regulatory matters. That's the assessment of Alexandria, Va.-based ASIS International a 33 000 member group of security professignals that last week released draft guidelines that companies can use when developing CSO positions

"There's been a lot of discussion on the need for organizations to create a centralized governance function for many areas of risk," said Jerry Brennan, president of Vienna, Vabased Security Management Resources Inc. and one of the drafters of the document.

Defining the Job

The midelines are the result of an attempt to give a formal definition of the scope, responsibilities, reporting relationships and experience needed to do the job, he said. "There wasn't much availtogether, from a governance

able that addressed the polling perspective, of all of the areas of security risk that an organization faces," Bronnan said "So we decided to try and craft a document that would be broad-based and truly represent what the CSO position

would be in an organization." The ASIS guidelines come at a time when a growing

number of security profescionals say there needs to be a top-level management position to oversee all aspects of operational risk "I have always found it pre-

posterous to suggest that there are separate disciplines that require separate management" when it comes to operational security said Dempis Tenese director of comprate security at the Massachusette Bost Authority in Rosson

For example installing a privacy officer who is separate from the rest of the security team only "fragments the effort and ensures that the placeical and virtual aspects of privacy have to be laboriously coordinated," Treece said. The having separate chief information security officer and CSO functions. "Having been both separately and now both at the confidence that combinions

them makes the most sense." Even so, secority profes-

sionals agree that only a rela-

nice have created a formal CSO function because of the substantial political and opennizational challenges that need to be excreene in cresting the role. Issues such as

and ownership of risk management fonctions can all be sticking points Broadening the Scope The popular notion of the

CSO being in charge solely of IT and physical security funetions has also somewhat limit-

ed the effectiveness of the role, said David W. Stacy, globof IT constituted instance of St Inde Medical Inc. a \$1.6 bitlion manofacturer of medical conforment in St. Paul, Minn I prefer the concept of the chief risk officer that encommasses those two areas" while also including other functions such as privacy, risk insurance and regulatory compliance.

Stacy said. "So, moving to a CSO model that only deals with IT security and physical security may be a logical first step to eventually setting to a CRO model," he added. "But even having a CSO would be a revolution, as opposed to an evolutixely small number of compation, in many organizations."

scope, reporting relationships

But some security professionals have trouble with the concept of having an allencompossine role For one thing, "there is a

have difference between the peacetics of physical escuring management and information security management " said. Eddie Schwartz, ehief technolper officer at Securevision I.I.C. a Fairfax, Va.-based consultancy "While both disciplines have the ose of technolouty as a common element, the background and education of

the practitioners are distinct." There's also the danger of rolling far too many functions under the CSO umbrella. Schwartz said. *It's an unnatural organization of activities and doomed to failure in most anizations," he said. O 42222

Relationship Management Key Skill for CSO Role

Relationship management skills are a top requirement for a successful chief security officer, according to ASIS International's recently released draft guidelines for the function

Because of the wide some of the job, CSOs must be able to influence and nurture" relationships with business-unit leaders government officials and profes sional emanizations, according to the ASIS guidelines.

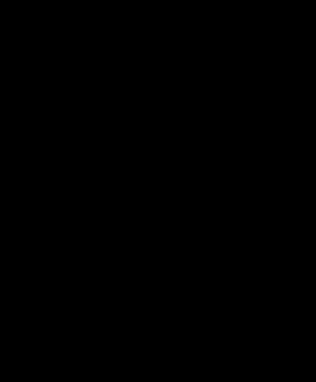
"Having good political, collet orative and marketing skills [is] critical for a CSO or cheef risk of ficer," said David Stacy, a sec ty director at St. Jude Medical. Also crucial is subject-met expertise CSOs must either have the knowledge thomselv or must ensure that adequate technical expertise is available to

cost-effectively deliver security services he said "Arryone with solid expension in one or more of the risk areas could do the job, as long as line

is] surrounded with experienced subject-matter experts and actually listens to them." Stacy said The CSO has to be able to

carry the water in the senior executive environment," said Denns Treece director of comorate security at the Massachusetts Port Authority. This means communicating effectively with the CEO and the board. The CSO must know how to create and defend a budget in a constrained fiscal environment. He needs to have a resume that gamers respect and must keep that respect by being a team player, not someone who is always crying

that the sky is fallion



Microsoft Upgrades CRM Applications resoft Corp. today plans to an

nce an upgrade of its CRM are that's designed to pron tighter security and simelition. Version 1.2 of Mioft CRM also supports more ges and will be offered outof North America for the first s, company officials said. The ere in available in North a now and will be relea sera cost month

Intel Sees Strong Revenue in 04

intel Corp. said it expects fourth-quarter revenue to come in at the high and of the range it projected earlier in the quarter. Citing ng microprocessor sales, in business should total be-on SB.5 billion and SB.7 bil-. However, the company od that it will take a \$800 miln charge to account for a reet for its primiers network

Software AG Trims Development Focus

metadt, Germany-based Softare AS said it's narrowing the ous of its software days ons to two product lines in ov will concentrate on Yidi -base or tools and its main-hware, which may be exfurough acquisitions, in m, technical suspect for the IML tooks in being shifted from

Short Takes

HOO INC. upgraded its instant ng seftware to plug a ernm security vuln s code on unprotected .. DELL INC. to off Edus servers it sells in China

AT DEADLINE Guidelines Released To Craft CSO Position

lob requires understanding of a wide range of IT and other risks, group says,

KNOWLEDGE of information security risk management is inst one of the many skills that a chief security officer needs for crafting influencine and directing an officetive organizationwide protection strategy

Increasingly, the lob also calls for an understanding of issues as diverse as emergency preparedness, crisis management and response, physical security, disaster recoverabilitv. and privacy and regulatory matters. That's the assessment of Alexandria Va-based ASIS International, a 33,000-member group of security professignals that lost week released draft guidelines that compa-

nies can use when developing CSO positions. "There's been a lot of discussion on the need for occanizations to create a centralized governance function for many areas of risk " sold lerry Beennan, president of Vienna, Vabased Security Management Resources Inc. and one of the drafters of the document.

Defining the Job

The guidelines are the result of an attempt to give a formal definition of the scope, responsibilities, reporting relationships and experience needed to do the job, he said.

There weren't much mailable that addressed the pulling together, from a governance perspective, of all of the areas of security risk that so organization faces," Brennan said. "So we decided to try and craft a document that would be broad-based and truly renresent what the CSO position would be in an organization." The ASIS midelines come at a time when a growing

number of security professionals say there needs to be a top-level management position to oversee all aspects of operational risk

"I have always found it preposterous to suggest that there are separate disciplines that require separate management" when it comes to operational security said Dennis Treece director of corporate security at the Massachusetts Port Anthority in Boston

For example, installing a privacy officer who is senarate from the rest of the security team only "fragments the effort and ensures that the physical and virtual aspects of privacy have to be leboriously coordinated," Treece said. The same is true when it comes to having senarate chief information security officer and CSO functions. "Having been both sengrately and now both at the same time. I can state with

confidence that combining them makes the most sense." he added Even so, security profes-

sionals agree that only a relatively small number of compaCSO function because of the substantial political and oreanizational challenges that need to be overcome in creating the role. Issues such as scope, reporting relationships and ownership of risk management functions can all be sticking points

Broadening the Scope The popular notion of the CSO being in change solely of IT and physical security func-

tions has also somewhat limited the effectiveness of the role, said David W. Stacy, global IT security director at St lude Medical Inc., a \$1.6 billion manufacturer of medical equipment in St. Paul, Minn. "I prefer the concept of the chief risk officer that encompasses these two areas" while also including other functions such as privacy, risk insurance

and regulatory compliance. Stacy said "So, moving to a CSO model that only deals with IT security and physical security may be a logical first step to eventually getting to a CRO model." he added. "But even having a CSO would be a revolution as apposed to an explution, in many organizations,"

But some security professionals have trouble with the concept of having an allencompassing role. For one thing, "there is a huse difference between the practice of physical security

management and information security management," said Eddie Schwartz, chief technology officer at Securevision LLC. a Fairfax. Va-based consultancy "While both disciplines have the use of technology as a common element, the background and education of the practitioners are distinct." There's also the danger of rolling far too many functions under the CSO umbrella. Schwarze said "It's an unne ural organization of activities and doomed to failure in most onzanizations," be said.

Relationship Management Key Skill for CSO Role

Piper technology allows for transfers of data while systems remain online

BY LUCAS MEARIAN

IBM last week announced a
data migration technology and
services designed to lure EMC
Corp. storage users to switch
to IBM disk arrays, with the
promise that corporate information can be transferred in a

masson can be transerred in a nondistruptive way. IBM's migration program involves 100 consultants in its professional services business unit who have been trained to use a new device called Piper. The appliance, developed over the past year, uses built-in data migration engines to move information from rival disk arrays to IBM's products, including its Enterprise Storsege Server (known as Shart).

and FAStT product lines.

Piper splits the data stream from an array so information can flow to IBM's replacement.

storage device in addition to the existing host server. That allows data to be transferred while the system stays online, although the migration specits slower than if the work was done off-line, said Lou Scinethetano, worldwide vice presidence.

dent of competitive storage sales at IBM. Sciacchetano said Piper can pull data from storage devices made by EMC and nine other vendors. But IBM is targeting EMC with the migration service. "There's lots of old, pro-

prietary EMC boxes out there

— 30,000 by my last count,"
be said.

IBM has been using Piper as
part of a beta-testing program
and said the migration offering has already helped it win
over former EMC users like
Royal Caribbean Cruises Ltd.

Minnesota's Hennepin County, Insurance Services Office Inc. and the U.S. Department of Agriculture.

of Agriculture.
Bob Cooly, storage administrator at the Department of
Agriculture's National Finance
Center, said he completed the
second phase of an ongoing
migration from two oldermodel EMC Symmetrix arrays
to an IBM Shark over the
weekend after Thanksgiving.
Conby wanted to upgrade to
newer storage technology to
pain features such as suspano

gam resurres such as snapsnocopying, which allows instantaneous backups of data. Cooby said that, with IBM's help, he transferred about 2.5TB of data between the arrays in 48 hours. "The thing I love about it is you're not splaning your own CPU cycless," he said, noting that the

cles," he said, noting that the migration process was transparent to his applications.

According to Cosby, EMC and Nitachi Data Systems

Corp. bid against IBM for the finance center's new data storage contract. Although the rival arrays were comparable in cost, IBM underest the competition on storage management software, he added.

EMC doesn't use an appliance similar to Piper to move data to its arrays. But Chock Hollis. EMC's vice president of platform marketing, said the Hopkinton, Mass-based company has offered its own nondisruptive migration technology may be a combination of host software and storage-based replication, coupled with a rigorous planning pled with a rigorous planning methodology, to execute data migrations with a minimum of time, effort and risk," Hollis said. He added that during the past two years, EMC bas migrated more than LOGOTB of IBM-stored data for IOO-plus customers.

Nonetheless, Piper gives IBM a leg up on other storage vendors, said Anne MacFarland. an analyst at The Clipper Group Inc. in Wellesley, Mass. "These days, when you don't have that weekend window all the time to perform data migrations, you're going to have to do it while things are up and running." She said. 6 42587

Has two configurations, no for migrating mainframe lats and another (pictured) or transferring data from https://www.and.WetWare. waterns.

systems.

" Can move data to ISM's Shark and FASTI disk array plan its externally attached 7333 Serial Disk System.

" Is decimed to work with

u is designed to work with storage devices made by EMC and nine other vendors.



IBM'S PIPER APPLIANCE

NetApp Signs Partnering Deals to Broaden Data Tools
Adds hardware.

Area networks (SAN), using | 18 Garmer Inc., sald NetApp in | 1907 trigger to use the AP

Adds hardware, looks for help on life-cycle software

av Lucas Meanton
Network Appliance Inc. last
week announced partnerships
with faceo Systems Inc., Veritas Software Cop; and Filshes
Corp, an part of a plan to offer
integrated storage systems for
information life-cycle management, regulatory compliance
and disk-based data bockup,
in addition, NetApp introduced several products, including two new file servers

duced several products, including two new file servers and an upgraded version of its NearStore disk array for secondary storage.

The Summyale Calif -based

The Sunnyvale, Calif-based company also upgraded an appliance that provides networkattached storage (NAS) fileserving capabilities to storagedisk arrays from other vendors for back-end storage (see box).

Regarding its partnershipe.

Regarding its qualifying its stonge devices for use with Cisco's MID 8000 family of multiprotocol SAN directors and switches. NetApp also plans to reself the switches and directors, starting with Cisco's MID 8000 series fabric switches. Those devices will be available within 45 days.

the company said.

To boost its bid to piece together a more complete set of
tools for automatically controlling data throughout its
entire life cycle, NetApp also
will resell FileNet's content
management software and
Veritas' storage and data man-

agement products. Carolyn DiCenzo, an analyst at Gartner Inc., said NetApp in June made a storage management application programming interface available for use by other vendors and is

PRODUCT DE

now trying to use the API to expand its sales.

expited its sales. The deal with FileNet lets NetApp offer FileNet's Image Manager, Content Manager and Records Manager applications. Meanwhile, NetApp will integrate Veritas' Data Lifesycle Manager and NetBackup noftware with its products.

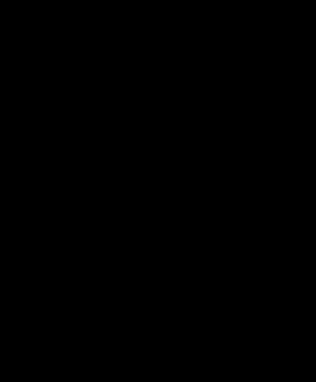
noftware with its products.
According to NetApp officials, the addition of Data Lifecycle Manager will enable
istorage managers to do policybased migration and archiving
of data between NetAppy devices and a mix of servers.
NetBackup will let users send
backup copies of data on Mixcrosoft Exchange servers and
file systems running on Windows, Unix and Linux hosts to
NearStore arrays, said Rich
Boberg, NetApp's senior director of technology partnering.

"Sixty percent of our cus-

tomer base uses Veritas for tape-based backup." Boberg said. "Having this as a seamless transition for them to go from tape to disk backup is a huge advantage for them." Randy Kerns. an analyst at

Evaluator Group Inc. in Greenwood Village, Colo, asid the information life-cycle management plans pit NetApp against storage rival EMC Corp. in a new way. EMC has become a competion to both Mountain View, Calif-based Veritas and Costa Mesa, Calif-based FileNet through recent deals to acquire software vendors. Legato Systems Inc. and Documentum Inc.

The alliances make sense from that standpoint, Kerns said. But he added that Net-App is "not planning on becoming a storage management software company. They're providing capabilities for the companies already in that space." © 43323



IBM Lures EMC Users With New Data-Migration Offering

Piper technology allows for transfers of data while systems remain online

SYLUCAS MEASURE IBM last week appounced a

data murration technology and services designed to have EMC Corp. storage users to excitch to IBM disk arrays, with the promise that corporate information can be transferred in a nondisruptive way.

IBM's migration program involves 100 consultants in its professional services business unit who have been trained to use a new device called Piper. The appliance developed over the past year, uses built-in data migration engines to move information from ried disk arrays to IBM's products. including its Enterprise Storage Server (known as Shark)

and FASCT product lines Piper splits the data stream from an array so information can flow to IBM's replacement

storage device in addition to the existing host server. That allows data to be transferred while the system stays online although the migration speed is slower than if the work was done off-line, said Lou Sciacchetano, worldwide vice president of competitive storage

calco or IRM Sciacchetano said Piner can pull data from storage devices made by EMC and nine other vendors. But IBM is targeting EMC with the migration service. "There's lots of old pro-

prietary EMC boxes out there - 30,000 by my last count." IBM has been using Piper as

part of a beta-testing program and said the migration offering has already belood it win over former FMC users like Royal Caribbean Cruing Ltd.

tv. Insurance Services Office

Inc. and the U.S. Department of Agriculture Bob Cosbs, storage adminis

trator at the Department of Agriculture's National Finance Center, said he completed the second phase of an ongoing migration from two oldermodel EMC Symmetrix arrays to an IBM Shark over the weekend after Thankseit inc Cosbs wanted to upgrade to newer storage technology to gain features such as snapshot copying, which allows instan-

taneous backurs of data Cooks said that with IRXCs help, he transferred about 2.5TB of data between the arrays in 48 hours. "The thing I love about it is you're not spinning your own CPU carcles," he said, noting that the

migration process was trans parent to his applications According to Cosby, FMC and Hitachi Data Systems

Corp hid round IBM for the finance center's new data storare contract. Although the ris sal arrass were comparable in cost. BIM undercut the comment software he of he i

FMC doesn't use an applisnee similar to Piper to move data to its arrays. But Chuck Hollis, FMC's vice president of platform marketing, said the Hopkinton, Mass, based company has offered its own nondisruptive migration technology since 1995, "We use a comstorage-based replication, conpled with a rigorous planning

methodology to execute Just micratume, with a minerous of time, effort and risk.' Hollisand the added that doesne do past two years, EMC has mugrated more than LURGY Bar IBM-stored data for 100-plus Nonetheless, Piper gives

BOL a leg up on other storage vendors, said Anne MacEarland, an analyst at The Clipper Group Inc. in Wellesley, Mass. "These days, when you don't have that weekend wondow all the time to perform data mustatums, you're point to have to do it while things are up and

running," she said Q 43287

- Has two configura: one for morating maintrains data and another (nictured) for transferring data from Unix. Windows and NetWare

· Can move data to IRM's Shark and FAStT disk array plus its externally attached 7133 Serial Desk System

* Is designed to work with storage devices mode by



NetApp Signs Partnering Deals to Broaden Data Tools Adds bardware

looks for help on life-cycle software

BY LUCAS MEARIAN Network Appliance Inc. last week announced partnerships with Cisco Systems Inc., Veritas Software Corp. and FileNer Corp. as part of a plan to offer integrated storage systems for information life-cycle management, regulatory compliance and disk-based data backup In addition, NetApp introduced several products in-

cluding two new file servers and an upgraded version of its NearStore disk array for secondary storage.

The Sunmyvale, Calif-based company also upgraded an appliance that provides networkattached storage (NAS) fileserving capabilities to storageanto networks (SAN) using disk arrays from other yeardoes for back-end storage (see how)

Regarding its partnerships. NetApp said it's qualifying its storage devices for use with Cisco's MDS 9000 family of multiprotocol SAN directors and switches. NetApp also plans to resell the switches and directors, starting with Cisco's MDS 9100 series fabric switches Those devices will be available within 45 days.

the company said To boost its bid to piece topether a more complete set of tools for automatically controlling data throughout its entire life cycle, NetApp also will resell FileNet's content management software and Veritas' storage and data management products.

Carolyn DiCenzo, an analyst

at Gartner Inc., said NetApp in lune made a storage management application program mine interface available for

use by other vendors and is PRODUCT DETAILS

now trying to use the API to expand its sales

The deal with FileNet lets NetApp offer FileNet's Image Manager, Content Manager and Records Manager applications. Meanwhile, NetApp will integrate Veritas Dora Lifecycle Manager and NetBackup

software with its products. According to NetApp officials, the addition of Data Lifecycle Manager will enable storage managers to do policybased migration and archiving of data between NetApp's devices and a mix of servers NetBackup will let users send backup copies of data on Mierosoft Exchange servers and file systems running on Windows. Unix and Linux hosts to NearStore arrays, said Rich

Bobern, NexApp's sensor director of technology partnering "Sixty percent of our customer base uses Veritas for tape-based backup," Bobere said. "Having this as a scamless transition for them to so from tape to disk backup is a

huge advantage for them. Randy Kerns, an analyst of Evaluator Group Inc. in Green wood Village, Colo., and the information life-cycle management plans pit NetApp against storage rival EMC Corp. in a new way. EMC has become a View, Calif-based Veritas and Costa Mesa, Calif.-based FileNet through recent deals to acquire software vendors Legato Systems Inc. and Docu-

The alliances make sense from that standpoint, Kerns wild But be added that Nor. App is "not planning on becoming a stories room warmens software company. They're providing capabilities for the companies alreads in that space." @ 43323

mentum In-

IBM Shifts Focus On Software Sales

IBM said it's reorganizing and retraining the sales force in its \$13 1 billion software group to increase the unit's focus on industre-specific sets of products More than half of IBM's 13,000 software sales workers will be sectioned to wortical industries over the next 12 months, IRM will also shift its marketing and inge extradement to emphasize appli cation packages involving its five major software product lines.

Sun Ends Talks Over Java Deal

Sun Microsystems Inc. said it has ended negotiations over a deal to merge its NetBeans Java development framework with the agen-source Eclipse technol pay backed by IBM. Sun said it withdraw from the talks because the company wasn't offered "an equitable share in mutual development," IBM declined to

And Rolls Out Blades, Software

in other Sun news, the como sunced a series of products at its European SunNetwork con ference, including a blade server offering that supports devices based on both its UltraSpare processors and Intel Corp.'s 186 chips. Sun also released server and desktop software bundles with per-employee pricing it detailed in September [QuickLink 415211

Linux Kernel Flaw Blamed for Attack

The developers of the open-source Debian Linux software said a recent intrusion into four of its servers was enabled by a flaw in the Linux 2.4 kernel. The vulnerability affects versions of the kernel prior to Linux 2.4.23. Patches were posted by Red Hat inc. and other Linux developers. MARK HALL ON THE MARK

SonicWall Boomed at The Comdex Show ...

says marketing VP Douglas Brockett, who acknowledged that his experiences might be contrary to those of other companies reported in this paper and elsewhere. Even given his satisfaction, he's not sure whether the venerable trade show, or any general technology trade show for that matter, will make it into his marketing budget in 2004 and beyond. "IT experts will get their less-technical information on the Web."

thinks you'll be heading to smaller for peted conferences, 'where like-minded people will discuss matters of commoo interest in detail." Buy Lett claims the small but steady stream of Comdexers who visited Sonic Wall Inc 's booth were attracted by the low-cost TZW line of cocure wireless network units that fits well into remote-office operations and will be upgraded to 802.He next year. The fact that the Sunmyale Calif-based comeans resells as Pro 3000 and Pro 4000 virtual

contrators to Cinco Sontems Inc probably gave cornerate IT booth visitors warm fuzzies as well. They also undoubtedly liked hearing about the 2004 firmware upgrades to the Pro line that will let them handle a mix of Secure Sackets Laver

private network con

(SSL) and IPsec traffic. cutting down on the ntion a Workbench tool set de number of systems to manage while giving mers the levels of se-

Brockett argues. But you won't just travel in the virtual world: he cure access they need for the applications they want to use # Il you mally want secure communications, go fax. "Faxes are traceable, backgroof and viruseroof. claims Mark Malone, senior product manager for Captaris Inc.'s RightFax family. The company's products link into application workflows, from supply chains

to law-office operations. In the RightFax. world, pages are sent electronically to Po desktons or fee printers Malona env. co. there's more firsibility and control about who sees what and when 11: boasts that Rightfeas has a royal church of market share already yet the client server product will be over-

hanled by the third quarter of next year The software is being redesigned using .Net and will swap out its proprietary Raima database for either Microsoft SOI Server or MySQL. Rut users won't have to wait that lone to see

Version 90 will include antispam features If you're in the health care market, you have to wait only until next month to get HIPAA provide features. That means lab toche can une only the nations data that's relevant to them and administrators can across even loss a Loss is more for the developers at Scapa Technologies Ltd. in Edinburgh Scans is a major contributor to Hyades, the monitoring and testing emiect for the open-source Eclipse framework, CEO Michael Norman says that be leveraging Hyades inside Felinse his team will have to crank out only 20% of the code needed to deliver plue-in tools for software writers. Granted, the 80%. delivered by the open-source community is the relatively easy infrastructure part Still, it means Scapa's plug-ips will get to market faster, like the tan I release of Scarca Stress Tests Express Designed for e-commerce applications, the testine tool can simulate an unlimited number of mers running an application through its paces, banging on everything from SSL to database access. Norman expects Scarce to eventually deliver testing tools for Web-based applications using SAP and he hones, Oracle, # Eclipse is being

other changes. In February Release 8.7 will have improved support for Notes and

Exchange, and a couple of months later.

ing popularity means IBM will need to relinquish control of the project. Already at 60 IT vendor members and growing monthly, "it needs to break away from the mother ship." Norman says. He predicts the next executive director of Edipse won't be from IBM. Once that happens, expect to see the likes of Oracle Corp. and Sun Microssstems Inc. jump on board. Microsoft too? Not in your wildest dreams. O 43310.

spearheaded by IBM, which sees the de-

Microsoft Corn's Not But Eclipse's ris-

velopment framework as an alternative to

CA Offers New Option for Web Services Management

Communies that have reached the stage where they need to manage Web services have typically had to turn to small, enocialm conduct for social tance. But they will get a new option today when Computer Associates International Inc. releases the latest addition to its Unicenter product line.

Unicenter Web Services Distributed Management (WSDM) can be embedded into both lava- and .Net-based

application servers to noticely observe XML traffic in real time, according to Mare Camm. a director of business development at UA. He said the approach will give users a betterperforming option than the agent- and prosy-based graducts in the market provide. its own SOAP stack, and we

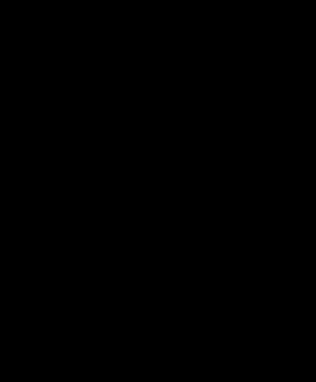
"Each application server has line of that level " Campo exid. He said the Unicenter WSDM leverages a company's existing infrastructure and needs to be

installed at only one of the endpoints of the Web services application. There's no need for a new logical or physical tier," he said Nick Gall, an analyst at Meta

Group Inc., said he has seen little user demand for Web services management products to date. He estimated that he has spoken with no more than 20 clients that have enough Web services in production to

But Gall said the CA announcement is noteworthy because a major vendor is finally shipping a product in the Web services management market even though it's just a LO release. He added that the needuct will eventually comely with standards being developed through the Organization for the Advancement of dards in Billerica, Mass. CA said its latest Unicenter offering is part of a collection of products that will enable end-to-end management of a Web services environment. Pricing for Unicenter WSDM starts at \$25,000 per server. The product can be embedded into application servers from BEA Systems Inc., IBM, Microsoft Corp., The |Boss Group LLC and Sun

Microsystems Inc. O 43335



IRM Shifts Focus On Software Sales

IBM said it's reorganizing and retraining the sales force in its \$13.1 billion software group to wase the unit's focus on intry-specific sets of produ re than half of IBM's 13.000 bygre sales workers will be or the next 12 months. IEM will also shift its marketing and et to empi in packages involving its five sare product lines.

Sun Ends Talks Over Java Deal . . .

Son Microsystems Inc. said It nas ended negotiations over a load to morne its NotBeans Java en-source Eclipse techni cled by IBM. Sun said it draw from the talks became bie share in mutual nt," IBM declined to

... And Rolls Out Blades, Software

In other Sun news, the comp nced a series of produ at its European SunHetwork con-ference, including a blade server ng that supports devices ors and Intel Corp.'s x86 chips. Sun also released server and dealtop software bundles or employee pricing it d in September [Quick] ink

Linux Kernel Flaw Blamed for Attack

The developers of the open-source Debian Limox software said a recent intrusion into four of its servers was enabled by a flow in the Linex 2.4 ternel. The vulnerability affects versions of red prior to Linux 2.4.23. MARK HALL ON THE MARK

SonicWall Boomed at The Comdex Show ...

... says marketing VP Douglas Brockett, who acknowledged that his experiences might be contrary to those of other companies reported in this paper and elsewhere. Even given his satisfaction, he's not sure whether the venerable trade show, or any general technology trade show for that matter, will make it into his marketing budget in 2004 and beyond. "IT experts will get their less-technical information on the Web." Brockett argues. But you won't just travel in the virtual world: he

thinks vou'll be heading to smaller, targeted conferences, "where like-minded people will discuss matters of common interest in detail." Brockett claims the small but steady stream of Comdexers who visited Speic Wall Inc 's booth more attracted by the low-cost TZW line of secure wireless network units that fire well into remote-office operations and will be uperaded to 802 He pext year. The fact that the Sunnyvale, Calif.-based company resells its Pro 3060 and Pro 4060 virtual private petwork con-

centrators to Cisco Systems Inc. probably gave corporate IT booth visitors warm fuzzien as well. They also undoubtedly liked hearing about the 2004 firmware upgrades to the Pro line that will let them handle a mix of Secure Sockets Layer (SSI) and IPsec traffic. cutting down on the

number of systems to

manage while giving

users the lessels of se-



cure access they need for the applications they want to use. " If you really want secure communications, go fax, "Faxes are traceable, hackproof and virusproof," claims Mark Malooe, senior product manager for Captaris Inc.'s RightFax family. The commany's products link into anplication workflows, from supply chales to law-office operations. In the RightFax world pages are sent electronically to DC

desktops or fax printers, Malooe says, so there's more flexibility and control about who

market share already. yet the client/server product will be overhauled by the third The software is being redesigned using .Net and will awap out its pro-printary Raims database for either Microsoft SQL Server or MySQL. But

tier," he said

sees what and when. He

houses that RightFay

users won't have to crosystems Inc. jump on board. Microsol wait that long to see too? Not in your wildest dreams. O 43310

installed at only one of the endpoints of the Web services application. "There's no need for a new logical or physical Nick Gall, an analyst at Meta.

Group Inc., said be has seen little user demand for Web services management products to date. He estimated that he has spoken with no more than 20 clients that have enough Web services in production to warrant management tools. But Gall said the CA an

nouncement is noteworthy because a major wendor is finally shipping a product in the Web services management market. even though it's just a 1.0 re-

other changes in February Release 8.7 will have improved support for Notes and Exchange, and a couple of months later, Version 90 will include antispam features. If you're in the health care market, you have to wait only until next month to not HIPAA privacy features. That means lab techs can see only the patient data that's relevant to them and administrators can access even less. # Less is more for the developers at Scans Technologies Ltd. in Edinburgh. Scapa is a major contributor to Hyades, the monitoring and testing present for the open-source Ecliese framework, CEO Michael Norman says that by leveraging Hyades inside Eclipse his team will have to crank out only 20% of the code preded to deliver plands trads for software writers. Granted, the 80% delivered by the open-source community is the relatively easy infrastructure part. Still it means Scapa's plue-ins will get to market faster, like the Jan. I release of

Scans StressTest-Express, Designed for e-commerce applications, the testing tool can simulate an unlimited number of users running an application through its paces, banging on everything from SSL to database access. Norman expects Scana to eventually deliver testing tools for Web-based applications using SAP and. he bones, Oracle, # Eclipse is being spearheaded by IBM, which sees the development framework as an alternative to Microsoft Corn's Net But Felinse's rising popularity means IBM will need to relinguish control of the project. Already at 60 FF vendor members and growing monthly, "it needs to break away from the mother ship," Norman says. He predicts the next executive director of Eclipse won't be from ISM. Once that happens, expect to see the likes of Oracle Corp. and Sun Mi-

> lease. He added that the product will eventually comply with standards being developed through the Orygoiration for the Advancement of Structured Information Standards in Billerica Mass CA said its latest Unicent offering is part of a collection of products that will enable end-to-end management of a Web services environment. Pricing for Unicenter WSDM starts at \$25,000 per server. The product can be embedded into application servers from BEA Systems Inc., IBM, Microsoft Corp., The JBoss Group LLC and Sun

Microsystems Inc. © 43335

CA Offers New Option for Web Services Management

Companies that have reached the stage where they need to manage Web services have typically had to turn to small. specialty vepdors for assistance. But they will get a new option today when Computer Associates International Inc. releases the latest addition to its Unicenter product line.

Unicenter Web Services Distributed Management (WSDM) can be embedded into both Java- and Net-based

application servers to natively observe XML traffic in real time, according to Marc Camm. a director of business development at CA. He said the approach will give users a betterperforming option than the agent- and proxy-based products in the market provide. Each application server has

its own SOAP stack, and we live at that level," Camm said. He said the Unicenter WSDM leverages a company's existing infrastructure and needs to be

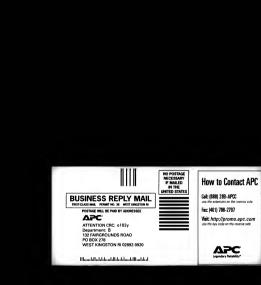
Find Out the Secrets of Real-time Infrastructure!

Alternative for the design of the Secrets of Real-time Infrastructure!

Alternative for the design of the Secrets of Real-time Infrastructure!

Alternative for the design of the Secrets of Real-time Infrastructure!

Alternative for the design of the Secrets of Real-time Infrastructure and the secret of the secret



"Thanks to InfraStruXure we were able to significantly cut overall equipment and management costs."

Experts and Editors agree...

Network World

Deloitte is only one of the latest partners benefiting from InfraStruXure's open, adaptable, and integrated approach to data center design.

The industry's only patent-pending, network-critical physical infrastructure (NCPI). InfraStruXure significantly decreases the total cost of ownership through:

Accelerated Speed of Deployment Electrical/physical modulanty allows for ranki installation with minimal engineering

Minimized Human Error

Simplicity of design and intelligent modules increase system availability by mitigating human error - the #1 cause of downtime.

Quick Fault Recovery

Compartmentalize potential failures with intelligent, maintainable modules.

Modularity for Ease of Growth

Pay as you grow and redeploy modular components as needed.

Find out how you can benefit from InfraStruXure's innovative architecture. Visit us today at www.anc.com

Deloitte on InfreStruXure* AIR

"APC had the plan of building air conditioning systems in the rack. In a traditional data center, you always have racks which are totally filled with CPUs and which become very hot. Then you have racks which are not deployed at all To manage the energy, the warmth and the consumption of electricity in those racks, we believe that with APC we have found the right solution."

Deloitta on InfraStruXure Benefits



security systems stability optimization, time to market and office operations. With InfraStruXure* you can get it right in one attempt."

ntrastructur

IntoWorld

View the Deloitte ca

init lette://www.anc.com in Kor Code e 183v # ATT-780-2707

60000 American Fower Convenient Corporation, All Trademarks are the property of their content. E-mail encouprellacon commit 100 Ferroscopis from Water Govern 15 (1000) 17.6. (Constitution of the Content of the Conten

DOD, Corporate RFID Backers Seek Standard

Pentagon official says two sides are close to deal on common specifications

AND PROTECTION OF ply chain official last week said the 115 Department of Defense is working with EPCplubal Inc. to develop radio frequency identification (RFID) standards that could

satisfy the needs of both corporate and military users Alan Estevez, assistant deputy underwornton; of Dofense for supply chain incorption said during a prove brusting that the standards process is complex. But Estevez added that he thinks the DOD and Boston-based EPCelubal can acree on common standards

"in a matter of months." The possibility that suppliers would have to support two sets of RFID standards arose in October, after the DOD mandated the use of RFID taes on shipping palkers and crates starting in early 2005 - a deadline similar to one that Wal-Mart Stures Inc. has set for its top suppliers.

FPC vs ISO

Wal-Mart and other corporate users plan to adopt the electronic product code (EPC) standards being developed by EPCglobal. But the Pentagnn said the tags its suppliers use will have to conform to specifications from the International Standards Organization [QuickLink 42347]

The DOD and EPCelubal are now cooperating to devise a set of standards that could be incorporated into the ISO's work, according to Estevez. He added that the passive RFID devices Wal-Mart wants

to use in its supply chain should accommodate most of the DOD's requirements. although military officials are seekine a data storage capacity that's larger than the 96-bit limit supported by existing commercial taes

The expanded capacity is needed to support the unique identification numbers that the DOD assigns to "husbaralue" goods that cost more than \$5,000. Estevez said. The tays used by the military will also

multiple reads and series of data he added Mike Lised, an analyst at Natick, Mass.-based Venture Development Corp., said blending EPCelobal's stan dards into the ISO's specifications would alleviate the

they will form if the DOD and Wal-Mart support different approaches

In addition, both Wal-Mart and the Pentagon could rear economic gains from using the un-called Class I Version 2 toe envisioned by EPCglobal. Lard said. That's because Texas Instruments Inc. and Royal Philips Electronics NV are both gearing up to produce the new devices in large have to be capable of handling quantities, which is expected

pared with existing RFID tars Estevez declined to say how much it will likely cost the DOD to install the IT infrastructure proded to support RFID in its supply chain. including the addition of

to result in lower costs com-

its RFID plans to key suppliers at a meeting in Fairfax. Va.

In a presentation at the RFID meeting. Estevez said the Pentagon wants to get its top 100 suppliers on board with RFID tags by the start of 2005 and add another 400

begin using RFID tags by Janu-

any 2005. Estewa's statement

came one day after the DOD

disclosed more details about

Rollout Plans

with its top 100 suppliers, ex

by January 2006 begin using the devices by Jan He acknowledged that it's unrealistic to expect all of the military's 43,000 suppliers to

uary 2006, he added. Some attendees at the REID meeting described it as mure collaborative than a similar event Wal-Mart held for its suppliers last month But Estever said the DOD has "drawn a line in the sand" on the use of RFID tags. "It's going to be in ever contract," be said O 43341

Wants its too 900 supplier

to begin using RFID in Janu ery 2005 and its too 500 to

ety like tarift parafebrism el

EXT WEEKS!

community by the middle of added costs that suppliers say RFID readers in warehouses that war. All suppliers should ware that was developed by

and supply denote

Users Benefit From Business Performance Tools but Say Rollouts Pose Challenges Software supports

planning, tracks financial targets

BY MARC L. SONOINI

Companies can improve their internal operations and slash costs through the use of business performance management (BPM) tools, according to attendees at a conference on the technology. But there are considerable challenges to be surmounted, they warned.

BPM projects involve the use of business intelligence software, such as balanced scorecard or analytic applicatiuns, to help executives prepare plans and analyze corporate performance via a dashboard-style user interface. The need for CFOs and

chief financial officers to comply with the accounting and reporting mandates of the Sarbanes-Oxley Act has given the BPM market a boost said

Craig Schiff CFO of BPM Page ners Inc. The Stamford, Conn. based consulting firm co-sponsored last week's Performance Management Conference with the Digital Consulting Institore in Andover, Mass.

A BPM system can deliver a holistic view of business performance, allowing executives to identify resenue and cost savings opportunities. Schiff said. But software costs can range from \$75,000 to mure

than \$500,000, he added And setting up BPM processes can be difficult, accord-

ing to a half-dozen users. The biggest challenge, and I don't care what kind of consultant you get or what you do. (is that) you truly have to understand what drives your business," said Celia Spitz, vice president of planning and analysis at Miami-based Vitas

Healthcare Corp., which provides hospice services. IT and husiness managers who are implementing BPM systems must decide "what the critical hits of information are that make a difference in a business," Spitz noted. "If you don't, it's just regargitating

data for 'analysis paralysis' and doesn't tell you anything." Vitas Healthcare uses a homegrown executive dashboard that's connected to on-

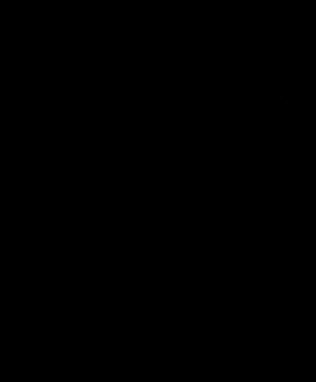
line analytical processing software developed by Applix Inc. in Westboro, Mass. Spitz said the BPM system has helped the company reduce its automileage and overtime costs. RSA Security Inc. uses softs

Comshare Inc., which is now part of Markham, Ontariobased Geac Computer Curp., to measure whether financial targets are met. The software has paid for itself, said David Stack, manager of corporate financial planning and analysis at RSA, a security software

wender in Redford Mass But Stack added that measuring how much of a return on investment RSA is getting is hard because many of the performance improvements made possible by the BPM

system are qualitative For Visua Healthcare Inc. the toughest part of its BPM rollout was ensuring that end users employed the system. because its blueprint validates the accuracy and consistency of data, said Mart Gualtieri, finance project manager at the medical products maker in Conshohocken, Pa.

But the hard work has poid off, Gualtieri added, "I think the pain and effort of going through implementing a system like this is worth it, because it forces you to do things better." O 43334



DOD, Corporate RFID Backers Seek Standard

Pentagon official says two sides are close to deal on common specifications

EFY PENTAGON SUDply chain official last week said the U.S. Department of Defense is working with EPC. global Inc. to develop radio frequency identification (RFID) standards that could satisfy the needs of both cornorate and military weers Alan Estevez, assistant

deputy undersecretary of Defense for supply chain integration, said during a press briefing that the standards process is complex. But Estevez added that he thinks the DOD and Boston-based ERCelobal can seree on common standards in a matter of months"

The possibility that suppliers would have to support two sets of RFID standards arose in October, after the DOD mandated the use of RFID tags on shipping pallets and crates starting in early 2005 - a deadline similar to one that Wal-Mart Stores Inc. has set for its top suppliers.

EPC vs. ISO

Wal-Mart and other corporate users plan to adopt the electronic product code (EPC) standards being developed by EPCglobal. But the Pentagoo said the tags its suppliers use will have to conform to specifications from the International Standards Organization

[QuickLink 423471 The DOD and EPCelobal are now cooperating to devise a set of standards that could he incorporated into the ISO's work, according to Estevez. He added that the passive RFID devices Wal-Mart wants to use in its supply chain should accommodate most of the DOD's requirements, although military officials are seeking a data storage capaci ty that's larger than the 96-hit

limit supported by existing commercial tars

The expanded canacity is needed to support the unique identification numbers that the DOD assigns to "high-value" woods that cost more than \$5,000 Fatewer said The room used by the military will also have to he capable of handling

multiple reads and writes of data, he added. Mike Liard, an analyst at Natick, Mass,-based Venture Development Corp., said blending EPCglobal's stan dards into the ISO's specifications would alleviate the added costs that suppliers say they will face if the DOD and Wal-Mart support different

In addition both Wal-Mare and the Pentagon could rean economic gains from using the so-called Class L Version 2 tag envisioned by FPCelobal Liard said. That's because Texas Instruments Inc. and Royal Philips Flortmoics NV are both searing up to produce the new devices in large to result in lower costs com-

quantities, which is expected pared with existing RFID tags. Estevez declined to say how much it will likely cost the DOD to install the IT infrastructure needed to sun port RFID in its supply chain. including the addition of RFID readers in warehouses

He acknowledged that it's

unrealistic to expect all of the military's 43,000 suppliers to begin using RFID tops by James ary 2005. Estevez's statement came one day after the DOD disclosed more details about

its RFID plans to key suppliers at a meeting in Fairfay Vs. In a presentation at the RFID meeting Estevez said the Pentagon wants to get its top 100 suppliers on board with RFID tags by the start of 2005 and add another 400 companies by the middle of that year. All suppliers abould

Rollout Plans

begin using the devices by lan mary 2006 he added Some attendees at the RFID

meeting described it as more collaboration than a cinciler event Wal-Mart held for its suppliers last month. Ren Estevez said the DOD has "drawn a line in the cond on the use of RFID taes. "It's going to he in ever contract," he said. O 43341

Users Benefit From Business Performance **Tools but Say Rollouts Pose Challenges**

Software supports planning, tracks financial targets

BY MARC L. SOMEIN

Companies can improve their internal operations and slash costs through the use of business performance managemeet (BPM) tools, according to attendees at a conference on the technology. But there are considerable challenges to he surmounted they warned

BPM projects impolve the use of business intelligence software, such as balanced scorecard or analytic applications, to help executives prepare plans and analyze corporate performance via a dashboard-style user interface.

The need for CEOs and chief financial officers to comply with the accounting and reporting mandates of the Sarbanes-Oxley Act has given the BPM market a boost, said

Craie Schiff, CEO of BPM Partoers Inc. The Stamford, Conn. based consulting firm co-sponsored last week's Performance Management Conference with the Digital Consulting Insti-

tute in Andover, Mass A BPM system cap deliver a holistic view of business performance, allowing executives to identify revenue and cost savines opportunities. Schiff said. But software costs can range from \$75,000 to more than \$500,000, he added.

And setting up BPM processes can be difficult, accord-

"The biggest challenge, and I don't care what kind of consultant you get or what you do, (is that) you truly have to understand what drives your business," said Celia Spitz. vice president of planning and analysis at Minmi-based Vitas

Healthcare Corp., which provides hospice services. IT and business man who are implementing BPM systems must decide "what the critical bits of information are that make a difference in a business," Spitz noted, "If you doo't, it's just regurgitating

data for 'analysis paralysis and doesn't tell you seathing." Vitas Healthcare uses a homegrown executive dashboard that's connected to on line analytical processing software developed by Applix Inc. in Westboro, Mass, Spitz said the BPM system has belped the company reduce its auto rage and overtime costs RSA Security Inc. uses soft-

ware that was developed by Comshare Inc., which is now part of Markham Ontarios based Geac Computer Corp., to measure whether financial targets are met. The software has paid for itself, said David Stack, manager of corporate financial planning and analy sis at RSA, a security software vendor in Redford Mare But Stack added that measuring how much of a return on investment RSA is cetting is hard because many of the performance improvements made possible by the RPM system are qualitative For Visays Healthcare Inc. the toughest part of its BPM rollout was ensuring that end users employed the system. because its blueprint validates the accuracy and consistency of data said Most Gualtieri finance project manager at the

medical products maker in Conshohocken, Pa. But the hard work has paid off, Gualtieri added, "I think the pain and effort of going through implementing a system like this is worth it, because it forces you to do things better." @ 48834



Hyper-Security.

Hyper-Threading Technology from Intel.
Why choose between PC security and
PC performance? The Intel Pentium' 4
Processor with HT Technology is
engineered to let PCs do two things at
once — without the frustrating lags? So
you can run a background virus scan
as you get some real work done.

Let all the details at intel.com/go/ht.



3Com, EDS Agree On Reseller Deal

Continuing an effort to revitalize its enterprise networking sales, 3Com Corp. announced a deal for Electronic Data Systems Corp. to reself its routers, switches and voice products. The global agreement is 3Com's first with a toplevel IT services provider, But EDS said the deal isn't as comprehen sive as an existing one it has with 3Com rival Cisco Systems Inc.

Canadian Railway Hands IT to IBM

Canadian Pacific Railway Ltd. said it has signed a seven-year. \$154 million (U.S.) outsourcing deal with IBM Canada Ltd., which will manage the Calgary, Albertabased railroad company's IT in-frastructure. About 100 IT work ers at Canadian Pacific Railway are being transferred to the ISM subsidiary along with data conters in Calgary and Torento.

CGI Signs Two Outsourcing Pacts

Montreal-based CGI Group Inc. nunced a pair of IT outsource ing contracts. CSI said it will nage all IT operations at Alcan Inc.'s Rolled Products North America division in Cleveland as part of a 10-year, \$113 million deal In addition. CGI has signed a 10year, \$167 million contract with The Robert Plan Corp., a Bethpage, N.Y.-based auto insurer,

Hong Kong Firm Is Top Pivotal Bidder

Pivotal Corp., a CRM softwar vender in Vancouver, British Co. lumbia, said a unit of Hong Kong hased Chinadotcom Corp. has topped two other buyout bidders with a \$52 million offer. Pivetal last month agreed to sell itself to an investment firm that wented to merge the company with Talisma Corp. in Kirkland Wash Ret the ent firm last week said it's sing Prestal from that deal.

Las Vegas Schools Mix IP. Digital Communications

S3IM project includes new backbone network, plus 27,000 dual-mode phones

THE PUBLIC SCHOOLS in Las Verris are near ine the midpoint of a backbone network in stallation that will support upof the largest IP-enabled phone systems deployed worldwide - a communications operade that's expected to cost a total

of \$31 million By early January, half of the 289 schools in the Clark Connry School District will be conmacted to an ID-broad mater nolitaniarea network hazed on Alcoted SA's OmniPCV Force prise technology, said Philip Broady the school exctom's chief technology officer. The MAN rollout is budgeted at \$15 million and should be

completed next November Clark County the nation's sixth-largest school district. is spending an additional Sta million to outfit its offices and every classroom with about 27,000 Alcatel phone sets that can operate in both digital and IP modes. About \$000 phones have been inscalled, and Brody said that project will take an-

other two years to finish **Explosive Growth**

The MAN and the dual mode phone system are designed to to support the school system's explosive growth. The district which serves 268,000 students and has 30,000 workers, is adding new schools at the rate of one per month.

"This is a crazy place, not just hecause it's Vegas, but this is also an incredible issurernant of education and tech nology," Brody said.

MORE NEWS

Aveys is amounting an uspriving of its IF telephony software: plus a senes of new

QuickLink 43364

The phones will be used promarily in digital mode in order to take advantage of diestal wiring that was recently installed in two-thirds of Clark County's schools. But some of the phones will be IP-based Brody said. In addition, the fiber-optic links and Girabit Ethernet switches being built into the MAN support IP.

The bybrid plan was person-

mended by a consulting firm three years ago, Brody said. Sr Louis based Dietrich Lockard Group Inc. said the esheed die trict could save \$2 million ner

Another advantage of an IDenabled system is that teachers will be able to make amor-

eency calls from their classrooms but incoming calls can be routed elsewhere to sould classatime interruptions, "We never had a public meeting about this project where the need to have a 'do come up," Brody said

To protect against potential network failures, every building will retain one line to the

not disturb' feature didn't

circuit-socitobod public totaphone system, he added Paris based Alexel's norworking hardware and software was sold to Clark County by Verizon Communications in New York, Verizon has also princided project management and installation support. according to Brody

Elizabeth Herrel. an analyst at Forrester Research Inin Cambridge, Mass... said the predictions of millions of dollars in annual savines are realistic because the new system will enquire less switching hardware at each loscation, "IP telephons is a practical solu-

tion, especially in places such as schools or banks where there are many offices, classrooms and branches," Herrel said. O 43301

Start-up Aims Software at **Design of Data Center Racks**

Web-based tool creates drawings. measures IT needs

AV MATT HAMOLEN Software start-up Visual Net work Design Inc. this week plans to bunch its first product, a Web-based tool for crossine drawings and reports that can help streamline the process of designing racks for network-

me and storage devices. The product, called Rackwise, is aimed at systems integrators and corporate IT staffers who plan and confee ure the racks that hold switches, server blades, cables and other equipment. A proprietary database uses deswines

created by Rackwise to calculate power, air-cooling and space requirements, said Emmett DeMoss, CEO of Visual Network in Burlingame, Calif. asmine Noel, an analyst at Ptak, Noel and Associates in Cambridge, Mass., said Cisco Systems Inc. and other his networking vendors sell configuration tools for their own products, "But the minute you miy and match bardware they're uscless," she noted Both Noel and John Mad-

den, an analyst at Boston based Summit Strategies Inc. said Rackwise could be help ful as large corporate users begin reorganizing their IT architectures around the concents of dynamic computing virtualization and policy-

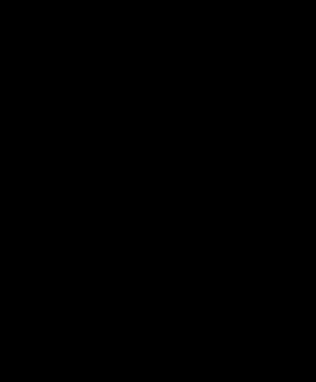
based management. At companies that adopt so-called adaptive business. processes systems managers will need automated tools to belt them quickly rewire and NEW SOFTWARE

reconfigure systems, they said Chris Shoop, the top executive at systems integrator Conexus Technologies LLC in West Chester, Ohio, has used Rackwise since May and hones to become a possiller of the software. Shoon said be uses the technology to belp "describe what the end delivetable will look like" when

Conexus is configuring system setups for clients. Shoop said Rackwise has also accelerated the design process, reducing jobs that took three hours with some computer-aided design tools to as little as five minutes. *Designang systems is typi-

cally a hairy process and not well planned," he said, "Projects tend to happen pretty owickle with the and usue or dering a bunch of software and hardware and as an afterthought realizing they need to connect it to more power or slam it all in a rack But Shoop said one feature

that he hopes to see in future versions of Rackwise is support for planning and designing a series of racks within a larger system. Visual Network pleas to do so in the next revision, DeMoss said. C 43309



3Com. EDS Agree On Reseller Deal

stinuing an effort to revitals Com Corp. announced a deal for Electronic Data Systems Corp. to reself its routers, switches and vales areducts. The global agreeent is 3Com's first with a toplevel (T services provider, But FDS said the deal lan't as com sive as an existing one it has with SCom rivel Cinco Systems Inc.

Canadian Railway

Hands IT to IBM Canadian Pacific Railway Ltd. said it has algoed a seven year, total million (U.S.) outsourcing deal with IDM Canada Ltd., which will manage the Calgary, Albertahased relired company's IT te-trastructure. About 100 IT work-ers at Canadian Pacific Relivey are being transferred to the IBM fary along with data con-

CGI Signs Two Outsourcing Pacts

Montreal-based COI Group Inc. end a pair of IT outs ing contracts. COI said it will manage all IT operations at Alcan inc.'s Rolled Products North nerica division in Cleveland as emerica division in Calvelano as sart of a 10-year, \$113 million deal in addition, COI has signed a 10year, \$167 million contract with The Robert Plan Corp., a Bethcase, M.Y.-based auto insurer.

Hong Kong Firm Is

Top Pivotal Bidder Pivotal Corp., a CRM selbus nder in Vancouver, British Co is, said a unit of Hone Keen toom Corp. has topped two other buyout bidders with a \$52 million offer. Pivotal ant month agreed to sell itself to on investment firm that wanted to marge the company with Tallema Corp. in Kirkland, Waste, But the out firm last week said it's

Las Vegas Schools Mix IP. Digital Communications

\$31M project includes new backbone

-THE PUBLIC SCHOOLS in Las Vegas are nearing the midpoint of a backbone network installation that will support one of the largest IP-enabled phone systems deployed sweldwide - a communications upgrade that's expected to cost a total

noillim 6230 By early January, half of the 289 schools in the Clark County School District will be conpected to an IP-based metropolitan-area network based on Alcatel SA's OmniPCX Enterprise technology, said Philip Brody, the school system's chief technology officer. The MAN rollouf is budgeted at

\$15 million and should be completed next November Clark County, the nation's sixth-largest school district is spending an additional \$16 million to outfit its offices and more classroom with shout 27,000 Alcatel phone sets that can operate in both digital and IP modes. About 5,000 phones have been installed and Brody said that project will take an-

other two years to finish. **Explosive Growth** The MAN and the dual-mode phone system are designed to

to support the school system's explosive growth. The district. which serves 268,000 students and has 30,000 workers, is adding new schools at the rate of one per month.

"This is a crazy place, not just because it's Veras, but this is also an incredible juggernaut of education and technology," Brody said.

MORE HEWS

Aveye is arenouncing an appropriat of its E-telephony software, plus a sense of new

octworking vendors sell con-

network, plus 27,000 dual-mode phones The phones will be used primarily in digital mode in order to take advantage of dieital wiring that was recently installed in two-thirds of Clark

County's schools. But some of the phones will be IP-based Brody said to addition the fiber-optic links and Gigabit Ethernet switches being built into the MAN support IP. The bybrid plan was recommended by a consulting firm three years are. Brody said. Sr. Louis-based Dietrich Lockard

Group Inc. said the school district could save \$2 million per

voice and data network Another advantage of an IPenabled system is that teachers will be

able to make emerpency calls from their classrooms, but incoming calls can be muted elsewhere to avoid class-time never had a resblic meeting about this project where the need to have a 'do oot disturb' feature didn't come up " Brody said

To protect against potential network failures, every build-

ing will retain one line to the

circuit-switched public telephone system, be added Paris-based Alcatel's networking hardware and software was sold to Clark County by Verizon Communications in New York. Verizoo has also provided project management and installation support. according to Brody

Flirsbeth Merrel an analyst at Fortester Research Inc. in Cambridge, Mass. said the predictions of millions of dollare in annual savings are realistic because the new system will require less switching andwise at each location. "IP telephony

is a practical solu tion, especially in places such as schools or banks where there are many offices, classrooms and branches," Herrel said @ 43301

Start-up Aims Software at Design of Data Center Racks

Web-based tool creates drawings. measures IT needs

OV MATT HAMBLEN Software start-up Visual Network Design Inc. this week plans to brunch its first product. a Web-based tool for creatine drawings and reports that can help streamline the process of designing racks for perwork-

ing and storage devices. The product, called Rackwise, is aimed at systems inteerators and cornerate IT staffers who plan and configure the tacks that hold switch-

es, server blades, cables and other equipment. A proprietary database uses drawings created by Rackwise to calculate power, air-cooling and space requirements, said Emmett DeMoss CFO of Visual Network in Burlingame, Calif.

lasmine Noel, an analyst at Ptak. Noel and Associates in Cambridge, Mass., said Cisco. Systems Inc. and other big

figuration tools for their own products. "But the minute you they're useless," she ooted. Both Noel and John Mad-

den, an analyst at Bostonbased Summit Strategies Inc. said Rackwise could be belo ful as large corporate users begin reorganizing their IT architectures around the concepts of dynamic computing. virtualization and policy-

based management At companies that adopt so-called adaptive business processes surfame management will need automated tools to help them quickly rewire and reconfigure systems, they said. Chris Shoop, the top executive at systems integrator Conexus Technologies LLC in West Chester, Ohio, has used Rackwise since Mer and hopes to become a reseller of the software. Shoon said he uses the technology to help "describe what the end deliverable will look like" when

Conexus is configuring system setups for clients Shoop said Rackwise has also accelerated the design process, reducing jobs that took three hours with some computer-aided design tools to as little as five minutes. *Designing systems is typically a hairy process and not well planned," he said. "Projects tend to happen pretty quickly, with the end users ordering a bunch of software

and hardware and as an afterthought realizing they need to connect it to more power or slam it all in a rack." But Shoop said one feature that he hopes to see in future

versions of Rackwise is support for planning and designing a series of racks within a larger system, Visual Network plans to do so in the next revi sion, DeMoss said. O 43309

The

"NOW EVE EXECUTIVE CAN-BACK U

vare comp

VERITAS

O 2003 VERITAS Software Corporation. All rights reserved. VERITAS, and the VERITAS Logo Roy. U.S. Pas. is Tm. Off.

PeopleSoft to Change Fees For I.D. Edwards Products

Goal is to unify pricing model for ERP applications from both vendors

TARTING FARTY DOX year, PeopleSoft Inc. will unify the pricing models for its Enterprise software line and the EnterpriseOne line built around the applications it picked up through its August acquisition nf LD, Edwards & Co. - a change that will alter the li-

censing structure LD. Edwards customers are accustomed to After the LD Edwards acquisition, Pleasanton, Calif. based PeopleSoft formed three product lines: Enterprise, a portfolio containing its traditional applications; Enterprivation a rehear but suite at LD. Educards applications; and World, the portfolio for LD. Edwards' legacy AS 400 World software Pathor than mingling code bases. People-Soft plans to indefinitely

maintain the three brands. **Melding Models**

PeopleSoft and LD. Edwards had different pricing strategies, however, PeopleSoft uses what it calls a realise based pricing model, in which its software has no list prices Fees are calculated based on a number of factors. including a customer's size. industry and annual revenue. The licenses usually cover an unlimited number of work LD. Edwards had a more traditional per-user licensing model for its applications

and modules "We've been doing a lot of work to roll out a single pricing model next year. We're movine more toward the PeopleSoft model," said Les Wyatt, a former LD. Edwards executive who now serves as general manager of People-

The change will affect only Enterprise and EnterpriseOne customers. World, for which additional licenses are sold

almost entirely into the existing base of about 3,400 cus tomers, will continue to be priced on a per-user basis. EnterpriseOne also has about 3,400 customers. The change will affect Enterritor() no customore or thou

license new modules from either the EnterpriseOne or Enterprise product lines. Maintenance fees for EnterpriseOne will also likely rise. Wyatt said, though he noted that J.D. Edwards had been raising its maintenance charges steadily

wors. Details of the pricing changes are still being worked

out he said "One of the things we don't want to do is move to a model that arbitrarily and dramatically increases our prices "Wyart said. "Our users will be paying roughly the same amount."

Not Convinced

One EnterpriseOne customer said he's keeping a wary eye on PeopleSoft's licensing plans. Manufacturing company Consolidated Container Co in Atlanta has about 400 employees in several facilities using Enterprise()ne applicatuons. Vice President of IT

Andrew Ziegele said Prople-Soft's sales team approached him last month about moving to a new licensing plan that would give him an unlimited number of user licenses. But Ziegele has no pressing need for more user seats, and the cost of the proposed new nion was around \$400,000

"That's pretty much like relicensing the whole thing " he said. "I'm concerned about the liceosine. I can see why there's some confusion PeopleSoft indicated to

Ziercle that any licensine changes to his contract would be optional, so be won't be forced into an expension recurrent software configure tion Zienele is considering picking up several new modules though and raid he isn't sure how expensive those

additions would be PeopleSoft's pricing plans

I'm concerned about the licensing, I can see why there's some confusion ANDREW TIERES & MEC ERESIDENT

OF IT COMPOSITION FOR THIS P. CO. will be finalized and implemented in the first quarter of 2004. most likely in lanuary.

Wyatt said. At the same time, People-Soft plans to unife its sales force with that of LD. Ed. wards, which has remained Sales executives will specialize by region and industry, but every sales employee will be able to sell every PeopleSoft product, Wyatt said. O 43343

Cowley writes for the IDG News Service

Patch Management Options Grow in Wake of Blaster Worm

LANDesk, other vendors rush to meet demand for automated patching tools

This summer's Blaster worm was one of the first pieces of malicious code to spread itself by means of network-connected PCs. And the worm highlighted the need for more efficient patching processes to

Since then, several vendors have announced automated management products designed to help companies quickly test patches, identify

NEW PRODUCY LANDesk Patch Manager 8

systems that need them and automatically update those This week. South Jordan. Utah-based LANDook Software Corp, will join the fray

with the shipment of LAN. Desk Patch Manager for automated vulnerability assessment and patch distribution. The software is designed to give administrators a centralized view of the patch status of systems on their networks, identify specific vulnerabilities, test and deploy the patches, and then audit them as

Other vendors marketing elmilar products include Shavlik Technologies LLC in Roseville. Minn., St. Bernard Software Inc. in San Diego, and PatchLink Corp. in Scottsdale,

Raymond James Financial Inc., a financial services firm

Ariz.

in St. Petersburg, Fla., has been beta-testine LANDesk's new patch management software for the past few months and is preparing to roll it out to 10,000 systems on its network

The commons has been using another LANDesk software tool to distribute patches companywide for

LANDesk's new

WORM WATCH several years, But For more on this logic, yield cus Konsylerine Centur O QuickLink a1280 notch management function will give the company a bet-

ter view of the systems that need to be patched and speed up the process of deploying the patches, said Andy Nosal a supervisor of LANDesk operations at Raymond James "I like the ease of being able

to find out what ratches are on what systems and seeing all the affected machines" that need patching, Nosal said. Stamford, Conn.-based Pinney Bowes Inc., meanwhile, is deploying similar patch man-

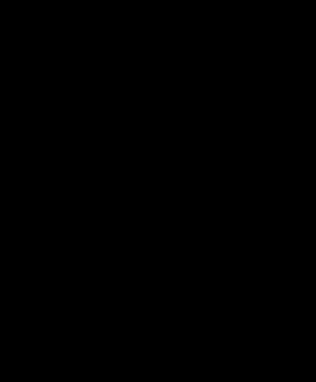
assement technology from Emeryville, Calif-based BigFix Inc. to 22,000 client systems The tool will not only help Pitney Bowes deploy patches much faster, but it will also help the company enforce tough new security policies related to network-connected desktops, notebooks and other client devices, said David Gi-

ambruno, the company's director of strategy and security. Since BigFix's software allows Pitney Bowes to monitor the patch status and virus siona.

> tures on every client device the technology has enabled the company to quickly identify improperly config-

ured systems and either block network scours to those our. tems or take remedial action, Giambruno said.

The client-level impact of Blaster forced a "fundamental change in our thinking," he said. Whereas before the focus had largely been on protecting the server environment, the current emphasis is also oo ensuring that client systems don't compromise security Giambruno added. O 43337



PeopleSoft to Change Fees For I.D. Edwards Products

Goal is to unify pricing model for ERP applications from both vendors

BY STACY COWLEY TARTING EARLY DEXT war. PeopleSoft Inc. will unify the pricing models for its Enterprise software line and the EnterpriseOne line built around the applications it picked up through its August acquisition of LD. Edwards & Co. - a change that will alter the licensing structure LD. Edwards customers are accustomed to After the LD. Edwards ac-

suisition. Pleasanton. Califbased PropleSoft formed three product lines: Enterprise, a portfolio containing les readitional applications; EnterpriseOpe, a rebranded suite of J.D. Edwards applications; and World, the portfolio for LD. Edwards' legacy AS/400 World software. Rather than mingling code bases, People-Soft plans to indefinitely maintain the three brands.

Melding Models

PeopleSoft and LD. Edwards had different pricing strategies, however, PeopleSoft uses what it calls a "valuebased pricing" model, in which its software has no lier prices. Fees are calculated based on a number of factors. including a customer's size, industry and annual revenue The licenses usually cover an mited number of users. LD. Edwards had a more traditional per-user licensing model for its applications

and madales "We've been doing a lot of work to roll out a single pricing model next year. We're moving more toward the PeopleSoft model," said Lee Wyatt. a former J.D. Edwards executive who now serves as general manager of PeopleSoft's EnterpriseOne line The change will affect only Enterprise and EnterpriseOne

customers. World, for which additional licenses are sold almost entirely into the existine have of about 3,400 customers, will continue to be priced on a necessar basis EnterpriseOne also has about 3.400 customers

The change will affect EnterpriseOne customers as they license new modules from either the EnterpriseOne or Enterprise product lines. Maintenance fees for EnterpriseOne will also likely rise. Wyatt said, though he noted that LD. Edwards had been raising its maintenance charges steadily

years. Details of the pricine changes are still being worked

out, he said "One of the things we don't want to do it move to a model that arbitrarily and dramatically increases our prices," Wyatt said. "Our users will be paying roughly the same amount

Not Convinced One EnterpriseOne customer said be's keeping a wary eye on PeopleSoft's licensing plans. Manufacturing company Consolidated Container Co. in Atlanta has about 400 employees in several facilities using EnterpriseOne applications. Vice President of IT

Andrew Ziesele said Banala. Soft's sales team approached him last month about movine to a new licensing plan that would give him an unlimited number of user licenses But Ziegele has no pressing

need for more user seats, and the cost of the proposed new plan was around \$400,000. That's pretty much like relicensing the whole thing," be said. "I'm concerned about the

licensing. I can see why there's come confusion PeopleSoft indicated to Ziegele that any licensing changes to his contract would be optional, so he won't he

forced into an expensive reinvestment to maintain his current software configuration. Ziegele is considering picking up several new mod ules, though, and said he isn't sure how expensive those additions would be. PeopleSoft's pricing plans

I'm concerned licensing, I can see why there's some confusion.

ANDREW ZIEGELE, VICE PRESIDENT OF IT, CONSOLIDATED CONTAINER CO. will be finalized and implemented in the first quarter of 2004, most likely in Innuary.

Weatt said At the same time, People-Soft plans to unify its sales force with that of LD Edwards, which has remained separate since its acquisition Sales executives will specialize by region and industry, but every sales employee will be able to sell every PeopleSoft product. Wyatt said. O 43343

Cowley writes for the IDG Meyer Service.

Patch Management Options Grow in Wake of Blaster Worm

LANDesk, other vendors rush to meet demand for automated patching tools

BY JAHLUMAR VIJAYAL This summer's Blaster worm

was one of the first pieces of malicious code to spread itself by means of network-connected PCs. And the worm high lighted the need for more efficient patching processes in many companies.

Since then, several vendors have approunced automated management products designed to help companies quickly test patches, identify

LANDesk Patch Manager 8

systems that need them and automatically update those systems. This week, South lordan, Utah-based LANDesk Soft-

ware Corp. will join the fras with the shipment of LAN-Desk Patch Manager for automated vulnerability assessment and natch distribution The software is designed to give administrators a centralized view of the patch status of systems on their networks. identify specific vulnershill.

ties, test and deploy the patchneeded. Other vendors marketine similar products include Shav lik Technologies LLC in Roseville, Minn., St. Bernard Software Inc. in San Diego, and

Patchi ink Corp. in Scottsdale, Raymond lames Financial Inc., a financial services firm

been beta-testing LANDesk's new patch management software for the past few months and is preparing to roll it out to 10,000 systems on its pet-The company has been using another LANDesk software tool to dis-

tribute patches companywide for **WORM WATCH** several years. But For more on this topic, visit LANDesk's new patch management

function will give

the company a better view of the systems that need to be patched and speed up the process of deploying the patches, said Andy Nosal. a supervisor of LANDesk operations at Raymond James

"I like the case of being able to find out what patches are on what systems and seeing all the affected machines" that need patching, Nosal said. Stamford, Conn.-based Pit-

ney Bowes Inc., meanwhile, is deploying similar patch man-

acement technology from Emeryville, Calif.-based BieFix Inc. to 22,000 client systems The tool will not only help Pitney Bowes deploy patches much faster, but it will also belp the company enforce tough new security policies related to petwork-connected desktoos, notebooks and other client devices, said David Giambruno, the company's di-

rector of strategy and security. Since BigFix's software allows Pitney Bowes to monitor the potch status and vinas sienabures on every client device, the

technology has enabled the compar to quickly identify improperly configured systems and either block network access to those evatems or take remedial action.

Giambruno said. The client-level impact of Blaster forced a "fundamental change in our thinking," be said. Whereas before the focus

had largely been on protecting the server environment, the current emphasis is also on ensuring that client systems don't compromise secu Giambruno added. O 43337



PRIMEPOWER servers. Designed for the business that never stops.

o availability and highly rated service and ort mean your business will be up and running. ree days, availability, performance, and reliability are everything. As you look to improve enterprise uptime and Increase service levels, you need to demonstrate urable short-term return on investment. Enter the Fuitsu* PRIMEPOWER" line of Solaris"-compatible servers. From single CPU, rack-mounted servers to enterprise-ready systems that scale to 126 CPUs in data center applications, we've got you covered. With superb reliability, industry-leading performance, and service that wins customer praise. PRIMEPOWER servers can dramatically boost the efficiency of your business. See why so many successful companies trust their businesses to the infinite power of Fuitsu. Get your copy of our FREE white paper, Experiences of Enterprise Customers, at www.computers.us.fujitsu.com/ad/primepower or call (877) 905-3644.



Continued from ease: 1

Cybersecurity

That commitment has comunder increased scrutiny during the past year as various studies and independent commarket forces alone haven't been sufficient to yield need

ed improvements in security At a summer moves conference, Robert Lucouski, assistant secretary for infrastructurn medication at the Donartment of Homeland Security: and Amir Yoran the newly appointed chief of the DHS's National Cyber Security Dayle sion, were grilled by reporters about the wisdom of the vovernment's nonregulatory anproach to working with the pri yate sector. Both Lisconski and Yoran said incressed sovernment regulation remains a possibility should the private sector fail to live up to its se-

curity responsibilities. "The private sector owne the problem," said Lisconski There are a lut of people out there who are willing to legislate. If that's what you want, I can promise you that you'll get it." But he added that the Bush administration doesn't think that better security can be legislated or forced on the private sector by the government

Yoran, making one of his first major policy speeches as director of the NCSD relead the private-sector executives present - only eight of whom were from nonvendor companies - if they were satisfied with the current level of procress in exhersecurity. "I hone that you are not," said Yoran.

"We are a nation at wor." In an interview with Computerworld. Yoran acknowledged the absence of user companies, such as utilities. natural gas companies, banks

is what you want, I can promise you that you'll get it.

ROBERT LISCOUSKI DEPARTMENT OF HOMELAND SECURITY

IT Security Pros Confident of Defenses

SANTA CLARA CALH Desorte a symplicant increase in the number of reported security incidents over the nost war a survey released last week by two industry croups reveals a binh level of confidence on the part of

IT security professionals As all the third quarter of 2003 public and private sector organizations reported 114 855 incodents to the CERT Coordination Center in Pittsburgh, That's an increase of 409n over last year according to the survey by the Business Software Allence (RSA) and the Information Sus-

terns Security Association (ISSA) The survey results indicate that the increase base's dampened the confidence of many security ad-

and transportation firms of the summir's debut. But be said the focus was to not tech nology providers moving on

the problem A summit focused on infrastructure owners and operators is scheduled for next month.

Continued from page 1

Support

ter in India [QuickLink 43]72] Other major vendors, including IBM. Hewlett-Packard Co., Oracle Corp. and Computer Associates International Inc., last week said they don't nlan to follow Dell's turnabout by reducing their reliance on global support operations. Lori Moore, vice president

of product support services at Microsoft Corp., said via e-mail that the company has never channed support locations because of user feedback, although it does get complaints "from time to time in each of our support centers. But she noted that Microsoft sets up support facilities in new countries "in a thoughtful and deliberate manner. We don't rush into uther markets."

For example, Microsoft two months ago launched a pilot program to support some of its products from a site in Rangalore, India. However, Moore ministrators, but whether that accoucately reflects the sense of composite contributes and the second of the 1716 ISSA mombers survived 700iwere limit opvernment agencies or IT worder and services from only 300b were comprete upper

Released the same day that service officials from the Department of Homeland Security warned that unwanted regulation would be the likely result if the private sector doesn't take ownership of cubersecurity, the independent survey found that lives out of four IT security administrators consider their companies to be crepared to delend ansest a meior cyberattack Eighty-seven percent said natches for known winesabilities

are up to date at their companies.

in addition three out of four resaid Sally McDonald, the senior executive in charge of the DHS's outreach program. Meanwhile referring indirectly to a Computerworld report last week in which some

industry executaves criticized the role of powerful IT indussaid it plans to take a "very w-

lective" approach on the pilot

Premier Support contracts are

being supported from the new

Despite its pullback Dell in-

dicated that it mucht eventual-

ly shift PC support back to In-

dia: Glenn Bonner, CIO at Dell

user MGM Mirane in Las Ve-

eas said providing technical

tions "really doesn't matter as

long as the quality of service is

support from offshore toca-

the same and there is not a

language barrier." If Dell can

successfully serve users from

India, "it'll just serve to reduce

Dell's cost and ultimately give

savings back to us," he added.

of business development at

for wendors to continually

chase around the world for

the lowest labor costs. That

requires constant training of

nical aspects of product sup-

port, but in English-language

skills as well, be said.

workers, not only in the tech-

HP, said it doesn't make sense

Tom Jannotti, vice president

project. No companies with

facility the added

ed their companies to strengthen their capabilities to respond to attacks. Seventy-seven percent said they have a formal encurby personan in place, and a whoromo 95% of those respondents said their over-

spondents said recent reports of software vulnerabilities have promot crame have coope management

sponsorship and approval Robert Holleyman prescriped of the BSA, said that while the survey shows progress is been made, "enormous challenges" remain, particularly in employee training and security hinding at small and midsize businesses. - One Medical

echnologies currently depl planned over the next 12 m 74% 62% 62% 31%

try lobbying groups [Ouick-Link 431891, Harris Miller, president of the Arlington, Vabased Information Technology those comments were erro neous and that the ITAA and other vendor groups that co-

sponsored the summit bose no lobbying power over the DHS. Lisconski echoed that claim We're not going to let anybody who operates (a busi ness) device their responsibil. ity," he said, "This is not about mollifying industry" O 43338

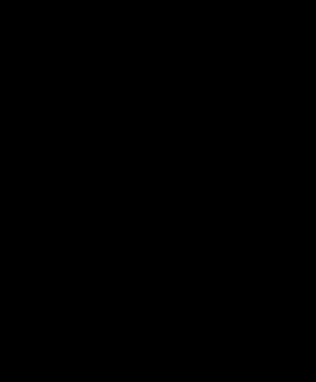
IBM doesn't have any belodesk operations in India, but it does handle support calls from a global network of facilities in Atlanta, Toronto, Scotland, Australia and China, according to a company spokesman. IBM isn't among the vendors that "pride themselves on doing things cheaply," he added. Kirkland Wash hased of ustomer Corp. uperates a pair of technical support outsourcing centers in India with a total of about 2,500 customer service workers and 200 other on-

players Sanisy Kumar the company's CEO, defended the quality of service that his India-based support technicions provide but acknowledged that their accented English can be hard for U.S. users to understand at first

"To the user, it's a new accent, a different one." Kumar said. However, he added that vCustomer spends "thousands of dollars" per agent on computer training and to "help neutralize the accent " (Kumar isn't related to CA's CEO, who

shares the same name.) Several analysts said they view the offshore sourcing of support as a trend that won't go away. But IDC analyst Ned May noted that the hardware success Dell has reaped through tight-fisted managerment of its supply chain does not necessarily translate into the more people-based support business, O 43340

Reporters Mott Homblen, Carol Sliwa and More L. Sangini contributed to this story.



Continued from page I Cvbersecurity

That commitment has co under increased scruting during the past year, as various studies and independent com missions have concluded that market forces alone haven't been sufficient to yield need-

ed improvements in security At a summit news conference. Robert Liscouski, assistent secretary for infrastructure protection at the Department of Homeland Security and Amit Yoran, the newly sppointed chief of the DHS's National Cyber Security Division, were grilled by reporters about the wisdom of the povernment's nonrecolutory anproach to working with the private sector Both Liscowski and Yoran said increased sovernment regulation remains a possibility should the private sector fail to live up to its se-

curity responsibilities "The private sector owns the problem," said Liscouski. "There are a lot of people out there who are willing to legislate. If that's what you want, I can promise you that you'll get it." But be added that the Bush administration doesn't think that better security can be leeislated or forced on the private sector by the government.

Yoran making one of his first major policy speeches as director of the NCSD asked the private-sector executives present - only eight of whom were from nomendor companies - if they were satisfied with the current level of progress in cybersecurity. "I hope that you are not " said Yoran We are a nation at war."

In an interview with Computerworld, Yoran acknowledged the absence of user companies, such as utilities. natural gas companies, banks

..... If [legislation is] want. I can promise you that you'll get it.

ROBERT LISCOUSICI, DEPARTMENT OF HOMELAND SECURITY

IT Security Pros Confident of Defenses

----Despite a significant increase in the number of reported security incidents over the nest year, a survey released last week by two istry groups reveals a high evel of confidence on the part of

IT security professionals As of the third cuerter of 2003. public and private-sector organi-zations reported 114,855 incidents to the CERT Coordination Center in Pittsburgh, Thef's an increase of 40% over last year. according to the survey by the Business Software Alliance (BSA) and the information Syr

terms Security Association (ISSA) The survey results indicate that the increase heart dampened the confidence of many security ad-

and transportation firms, at the summit's debut But he exid the forms was to get techpology providers moving on the problem

A summit focused on infrastructure owners and operators

is echaduled for next month

Continued from pasy I Support ter in India [OuickLink 43172].

Other major vendors including IBM, Hewlett-Packard Co., Oracle Corp. and Computer Associates International Inc., last week said they don't plan to follow Dell's turnabout by reducing their reliance on global support operations. Lori Moore, vice president of product support services at Microsoft Corp., said via e-mail that the company has never changed support locations because of user feedback. although it does get complaints "from time to time in each of our support centers. But she noted that Microsoft

sets up support facilities in new countries "in a thoughtful and deliberate manner. We don't rush into other markets." For example, Microsoft two months ago launched a pilot program to support some of its products from a site in Bangalore, India. However, Monre

ministrators, but whether that accurately reflects the views of corporate security personnel is unclear. Of the 1,716 ISSA members surveyed, 70%

were from government agencies or IT wonder and services firms not 30% were corporate users. used the same day that so oficials from the Department of Homeland Security warned that are result if the private sector doesn't take ownership of cybersecurity, the independent survey found that three out of four IT security administrate nsider their companies to be prepared to defend against a major said catches for known vulnerabili

are up to date at their com

in addition, three out of four resaid Sally McDonald, the senior executive in charge of the DHS's outreach program. Meanwhile, referring indirectly to a Computerworld report last week in which some industry executions criticised the role of powerful IT indus-

said it plans to take a "very se-

lective" approach on the pilot

Premier Support contracts are

being supported from the new

Despite its pullback. Dell in-

dicated that it might eventual-

ly shift PC support back to In-

dia Glenn Bonner CtO at Dell

user MGM Mirage in Las Ve-

gas, said providing technical

support from offshore loca-

the same and there is not a

language harrier." If Dell can

successfully serve users from

India, *it'll just serve to reduce

Dell's cost and ultimately give

savings back to us," he added.

of business development at

for vendors to continually

chase around the world for

the lowest labor costs. That

requires constant training of

workers, not only in the tech-

nical aspects of product sup-

port, but in English-language

skills as well, be said.

HP, said it doesn't make sense

Tom lannotti, vice president

tions "really doesn't matter as

long as the quality of service is

project. No companies with

facility, she added.

condents said recent reports of e unemblitus have pror ed their companies to stree ty-seven percent said they have a former security proce

in piece, and a whopping 90% of those respondents said their programs have senior mana

of the RSA said that whi

try lobbying groups [Quick-Link 431891, Harris Miller. president of the Arlington Vahased Information Technology Association of America, said those comments were erroneous and that the ITAA and other yendor groups that co-

sponsored the summit have no lobbying power over the DHS. Liscouski echoed that claim. "We're not going to let anybody who operates (a busi ness) dodge their responsibility." he said. "This is not about mollifying industry." Q 43336

IBM doesn't have any help desk operations in India, but it does handle support calls from a global network of facilities in Atlanta, Toronto, Scotland, Australia and China, according to a company spokesman.

IBM isn't among the vendoes that "pride themselves on doing things cheaply," he added. Kirkland, Wash, based vCustomer Corp. operates a pair of technical support outsourci centers in India with a total of about 2,500 customer service workers and 700 other em-

ployees, Saniay Kumar, the company's CFO, defended the quality of service that his India-based support technicians provide but acknowledged that their accented Envlish can be hard for U.S. users to understand at first.

"To the user, it's a new accent, a different one," Kumar said. However, he added that vCustomer spends "thousands of dollars" per agent on computer training and to "belo neutralize the accent." (Kum isn't related to CA's CEO, who shapes the same name)

Several analysts said they view the offshore sourcing of support as a trend that won't go away. But IDC analyst Ned May noted that the hard ware success Dell has reaped through tight-fisted management of its supply chain does not necessarily translate into the more people-based support business. O 43340

Reporters Matt Hambien, Carol Sliwa and Marc L. Soneini contributed to this story.

Bank One sees a bright future with Samsung.

SHOWING WITH DITSAGE

SOLT 600

SOLT 320

7 VS160 DLT VS80

To Mile transfer rate; it's the facilist super drive in the market. The SOUI GOS cloves with DUTSope" in give you obtained ensemplability and reliability. Your ticked to enterprise extensions, the SOLT 600 ackward competible to the SDLT 328 and the DLT VS100. Get a seesk proviou of this new drive nd measurers' companies in the 2014, 2018 also the DLC VSTOR, that it asked previous of this law offer and register to Will a home theories system at DLTtops.com today! Options are a Beautiful Thing."



IT Hiring Plans Vary, Despite Signs of Demand for Workers

Hiring Expectations

Tech recruiters cite heightened jobs activity

BY THOMAS HOFFMAN With the U.S. economy picking up

With the U.S. economy picking up steam, some recruiters are seeing a rise in demand for technology workers. But several IT managers who were interviewed in late November said they have a mix of hiring plans.

Following a series of hirings earlier this year, Choice Homes Inc. has as many IT staffers as it expects to need for the next six months, said Andrew Brimberry, director of information services at the Arlington, Texas-based

bome builder.
Choice Homes
added a database administrator, a WAN

technician and two help desk administrators to help support an expansion of its IT infrastructure that was fueled by revenue growth. With those jobs filled, Brimberry said he doesn't see any need to further expand need to further expand

his 24-person IT staff. The hiring situation is similar at Emecor Group Inc., but for different reasons. Norwalk, Conn-based

Emoor makes electrical and mechanical systems for commercial construction uses and offers a variety of facilities-related services. But unlike Choice Homes, which has bene-

fitted from continued strength in new housing starts, Emcor has been hurt by weakness in the commercial sector. That's the main reason why Emcor plans 'little to no growth in staff' within its IT department and has only

within its IT department and has only a handful of major technology initiatives in its 2004 budget, said CIO Joseph Puglisi.

On the other hand, PRG-Schultz International log, plant to increase its IT.

to the other name, Pre-Scientis international lize, plants to increase its IT staff by more than 10% next year. CIO Elic Goldfarb said the Atlanta-based company, which does sudding work to help corporate clients identify overpayments to their suppliers, will add 20 domestic and international IT workers to its current staff of 185 to support increasing customer demand.

report increasing customer demand.

"But I think the trend this upcoming

year is for highly specialized talent," Goldfarb added, citing PRG-Schultz's need for experienced IT professionals with ERP skills as an example.

According to New York-based Dice.

72% of the 258 human resources
managers and recruiters who responded to an e-mail survey in August said
they planned to increase their hiring
of tech workers within either three or
six months. "This is a huge difference
from the survey we conducted last
vex." said Scot Melland, president and

CEO of Dice, which operates an online job board for tech workers. The new survey didn't explore the types of positions that are in greatest

demand, nor did it assess hiring by vertical industry. But Melland said an analysis of his company's Web site shows that demand remains strong for "tradi-

tional, hard-core IT positions," such as Unix systems administrators and Oracle and SQL Server database admin-

The industries that are doing the most hiring include acrospace and defense plus financial services, Melland added.

Unemployment rates remain high among IT workers compared with historical levels. The Commission on Professionals in Science and Technology, a Washing ton-based nonprofit group that does research on workforce and educational sixues, said in a report released in Sen-

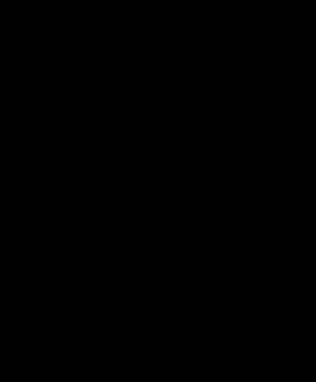
issues, said in a report released in September that 6% of IT professionals were out of work. The group added that the overall number of IT jobs has declined by 190,000 from its peak of 2.5 million in 2000 (quickLink 4139). Conditions in the IT lob market

"have been very trying for the past two years, but things have picked up a lot since August," said Jim Tobin, a senior technical recruiter in the Rochester, NY, office of staffing services provider Manhower Inc. © 43279

ON THE JOB for hall coverage of 17

tell coverage of IT workforce issues, go online at Caneers Knowledge Center: b. Guidelt last at 1400

THE NEW **SDLT 600.** RELIABILITY HAS **NEVER BEEN FASTER.**



IT Hiring Plans Vary, Despite Signs of Demand for Workers

Tech recruiters cite heightened jobs activity

With the U.S. economy picking up

steam, some recruiters are seeing a rise in demand for technology workers. But several IT managers who were interviewed in late November said. they have a mix of hiring plans.

Following a series of hirings earlier this year, Choice Homes Inc. has as many IT staffers as it expects to need for the next six months, said Andrew Brimberry, director of information services at the Arlington Texas-based home builder

Choice Homes added a database administrator, a WAN technician and two help desk administrators to help support an expansion of its IT infrastructure that was faeled by revenue growth. With those jobs filled, Brimberry

said he doesn't see any need to further expand his 24-person FT staff. The hiring situation is similar at Emcor Group Inc., but for dif ferent reasons. Norwalk Conn -based

Emcor makes electrical and mechanical systems for commercial construction uses and offers a variety of facilities-related services. But unlike Choice Homes, which has bene-

fited from continued strength in new housing starts, Emcor has been hurt by weakness in the commercial sector. That's the main reason why Emcor plans "little to no growth in staff" within its IT department and has only a handful of major technology initia-

tives in its 2004 budget, said CIO Joseph Purdisi. On the other hand, PRG-Schultz International Inc. plans to increase its IT staff by more than 10% oext year CIO Eric Goldfarb said the Atlanta-based company, which does auditing work to help corporate clients identify overpayments to their suppliers, will add

20 domestic and international IT workers to its current staff of 185 to

support increasing customer demand. "But I think the trend this upcoming

Goldfarb added, citing PRG-Schultz's need for experienced IT professionals with FRP skills as an example

According to New York-based Dice Inc., 72% of the 263 human resources managers and recruiters who responded to an e-mail survey in August said they planned to increase their hiring of tech workers within either three or six months. "This is a huge difference from the survey we conducted last

year," said Scot Melland, president and CFO of Dice which operates an online inh hound for tech workers The new survey didn't evolute the types of positions that are in greatest

demand, nor did it assess hiring by vertical industry, But Melland said an analysis of his company's Web site shows that demand remains strong for "traditional, hard-core IT positions," such as Unix systems administrators and Oracle and SOI

Server database adminintratore The industries that are doing the most hirine include aerospace and defense plus financial services. Melland

Unemployment rates remain high among IT workers compared with historical levels. The Commission on Professionals in Science and Technology, a Washing-

ton-based nonprofit group that does research on workforce and educational issues, said in a report released in September that 6% of IT professionals were out of work. The group added that the overall number of IT jobs has declined by 150,000 from its peak of 2.5 million in 2000 [QuickLink 41519].

Conditions in the IT job market "have been very trying for the past two years, but things have picked up a lot since August," said Iim Tobin, a senior technical recruiter in the Rochester N.Y., office of staffing services provider Manpower Inc. O 43279



THE NEW **SDLT 600.**

RELIABILITY HAS NEVER BEEN FASTER.







And so is HP So naturally, HP has emerged as the wolf-level is factor in Linux solutions. By facisting on the lay strength of Linux—open system emroamates—HP has been solving real business problems for more customers than cayned in 18 quarters unturing. With HP hardware, soll-wise and over 4,000 Linux, soll-wise and over 4,000 Linux, solvies and over 4,000 Linux, solvies and over 4,000 Linux, solvies and the Linux leader. And the case you should cold to make every your most business critical spelicolions easier to manage of lower costs. Demand more.

hp

To see what HP and Linux can do for your business, try our TCO calculator at www.hp.com/qo/demandlinux.



BEA, IBM Team on New Java Specs

BY CAROL BLIWA
BEA Systems Inc. and IBM,
rivals in the application server
software market are teaming

up to propose three Java specifications in a bid to further the cause of application consistenThe two companies published the specifications late last month and submitted them under royalty-free terms to the Java Community Process (JCP) organization, which Sun Microsystems Inc. set up to evolve its Java technology. Voting by JCP members on whether to accept the specifications been less week and the results are due to be announced on Dec. 16. Perhaps the most significant specification for corporate developers is one culled Service Data Objects. SDO aims to provide a simple, unified programming model for accessing data from beterogeneous systems, including relational databases, XMI,-based deta sources. We services and

sources, Web services and enterprise applications. Nick Gall, an analyst at Meta Group Inc., said many of his clients are grappling with the problem of providing uniform access to structured and unstructured data. "This has been a never-ending challenge for all application architectures." Gall said. calling it an issue for both Java and Micro-

soft developers.

BEA and IBM also published a pair of application
programming interfaces. One
is designed to let applications
based on JEE schedule work
to execute concurrently, and
the other supports the schedule
alling and receipt of timer

Allow for Feedback Scott Dietzen, chief technolo

gy officer at BEA, noted that it can take one to two years for a java specification to become a formal standard. But he said that by publishing the new specifications and implementing them in BEA's WebLogic and IBM's WebSphere software, the companies and other ICP members will be able to next more forchack from the

marketplace.
"We clearly tried to stream-line this process and help it along from an adoption stand-point," said Bod Smith, vice president of Internet emerging technologies at IBM. The specifications will be supported in WebSphere nest year, according to an IBM spokewoman. Ted Schadler, an analyst at Forrester Research Inc., said BBA and IBM are trying to blockets.

BEA and IBM are trying to kick-start Java innovation in response to slow progress through the JCP. "I hope it works, because I think users could benefit from the puce of innovation that would happenen." he gaid. © 45167

Strength in Numbers.



Remedy is the leader in Service Management solutions. Our numbers speak for themselves.

Yet, there are other numbers important to Remedy. Operating cost reductions, improvements in customer satisfaction, increased employee productivity, shorter time to value—the bottom-line numbers you will achieve by using Remedy's out-of-bott best practice applications to automate service management processing.

Your success depends on those numbers. Remedy delivers them.

www.remedy.com/strength or call us at 1.888.294.5757



eat the odds with Trend Micro.

pari, viruses, and malicious behavior can all threaten your curry. That's why Trend Micro, the global leader at the greated InterScan Messaging Security Suite 5.5-- a cost-off thingrated messaging security platform that combines antivirus, costent filtering, and anti-Spam applications in one easy-to-manage, scalable solution.

For a free evaluation, call 1.888.58.TREND

or go to www.trendmicro.com

E DEN A





MARYFRAN IOHNSON

Titanic Discontent

DITORS ARE STICKLERS about finding the right word or turn of phrase. So I had to cringe a little at calling our recent annual Iob Satisfaction Survey by its given name

OuickLink a38101. "Job Dissatisfaction Survey* would have been a lot closer to the truth Our online survey of 936 IT staffers and man-

agers vielded a gruesome and depressing linear of statistics, with 82% finding work more stressful. (9% serving they're ove working to their full notential and 56% noting a dron in their satisfaction from a year seo

Those results weren't all that surprising, really, when stacked up against the similarly dreary findings of our annual salary survey earlier this fall [QuickLink 41785]. That one documented shrinking pay scales. overloaded work schedules, worries about outsourcing and the continued negative impact of this industry's re-

lentless economic doldrums. Are your eves playing over yet? Mine too, I can absorb only so much bad news in statistical form before it becomes just a stream of numerical white noise. And what's happening on the job in IT these days mirrors the situation in so many other sectors of the economy - blue collar and white collar alike - that disgruntlement feels like the status quo everywhere. More than half (51%) of the 3.278 U.S. workers surveyed last year by Spherion Corp. and Harris Interactive said they wanted to leave their current lobs.

So, who cares? Who's got the luxury of time to worry about unhappy IT staffers or chronically stressed project managers? Once the economy starts to party again, these people problems will fade away like a New

Year's Day hangover, right? Fade away is right. To other jobs at other companies, as our "Already Gone" story in this week's Management section contends (on page 47, and online at Onicklink 43000) Up to half of your overworked IT managers and star players may be planning an exodus as soon as an opportunity presante itsalf

Worrying about an IT brain drain may seem pointless right now, when nobody's going anywhere fast and the most robust erowth industry seems to be offshore

outsourcing. But all sorts of employee surveys are issuing warnings about this hulking iceberg of discontent drifting along menacingly below the IT workplace surface, ready to strike. Yet unlike all the other complex problems you're wrestling with, this one has two very basic, inexpensive

solutions 1. Start some candid conversatio about workplace concerns within your If group. Your ability to talk about what's oo their minds could have

an enormous, positive impact on morale. "No matter how busy everyone is you should be able to remove out just a little time to encourage discussions about what would imnowe conditions. Try taking small groups of staffers to lunch once a week to discuss their perspectives on how things are going," recommends Paul Glen, one of our Managemen columnists [Quick] ink 423561 and author of Leading Geeks: How to Manage and Lead the People Who

Deliver Technology. 2. Pay attention to and act upon what those conversations tell you. Can you cut back on overtime or put some lesser projects on the back burner? Can you build in more flexible work schedules or lighten workloads? "Emplowers understand and can handle the fact that the economy is tough,"

says Ed Jenson, a partner in the human performance practice at Accenture, who's been hearing firsthand about the "already gone" syndrome at IT client sites, "They want to feel part of the process and understand why decisions are being made." Following this advice could belo

turn a dissatisfied crew into a more motivated one that will stay with you once the economy bounces back Isn't it worth a shot? @ 43271

Saving Bandwidth And Britney URING A RECENT

DIMM FOY

trip to the movies. I was greeted by Hollywood's not-so-subtle campaign to promote its view that video piracy is sucking money out of the pockets of stunt doubles (never mind the stars). It's only a matter of time before music moguls warn me not to steal cash from Britney Spears' favorite Cartier salesclerk The music industry is already way-

ing pasty letters in the faces of colleges and universities cautioning them to curtail piracy. Luckily there's a technology solution to the problem, which technology itself created. The technology that created the

problem is high-speed Internet access which is available

throughout the campuses of most educaional institutions Students and faculty members use the Internet for research and legitimate file sharing. There's considerable competition for the limited

bandwidth Add in less-than-legitimate downloads of music and video, and a lot of bandwidth sets

Jon Dodds, manager of network and tech services at Fairmont State College in Fairmont, W.Va. (7,200 students, 450 faculty members), wanted to take control of his handwidth. In the process he has made sure that the school does its bit to promote compliance with copyright laws. He's quick to point out this isn't about consorship: it's about using resources effectively

His quest led him to Bakersfield. Calif.-based Lightspeed Systems Inc. His initial success with the 30-day evaluation copy of the company's bandwidth management product led him to here it

We started by doing bandwidth prioritization between the dorms and the main campus," Dodds says. During business hours, campus conpections have priority over dorm use. and Dodds can filter out certain IP ad-



dresses, block some peer-to-peer traffic and even segregate dorms by subnet. Using the graphic canabilities of the package, Dodds is able to see which protocols are using the most bandwidth and then allocate band-

width as needed He uses the two servers that run the bandwidth management software in an array for fail-over protection, ensuring continuous connection to the network Dodds even tests new configurations on one of the servers' arrays before

promoting it to the primary array. Prior to implementing the bandwidth management setup. Fairmont was considering purchasing additional

bandwidth. That's now been shelved. And as for pulling the plug on illegal music and video downloads, well, let's just say Britney can shop to her heart's content O 43186

THORNTON A. MAY

Disconnecting IT From Reality

N THE PAST 60 DAYS, I have been knees-underthe-table with hundreds of IT leaders and scratch-andsniff close to scores of vendor CEOs. In addition, I've attended more than my share of IT events. One of them, Comdex, brought together the ideas that have been swirling about me for the past two months, with frightening clarity.

We stand at a moment unprecedented in the evolution of IT. I use the word unprecedented because at no previous time in history has technology possessed more promise or its value been so seriously doubted. The doubts could overwhelm the promise, however, since two yast disconnects imperil our possibilities.

sourced No. & Despite being anointed by the mainstream media, Bill Gates, Windows and Microsoft aren't the future of our industry. On Nov. 16, some 7,000 IT leaders

streamed into the Aladdin Theatre in Las Veras to hear what Gates had to say in his Comdex keypote speech. Yes barely half of the audience members were able to remain conscious through what may well have been the worst piece of oratory ever inflicted upon the technology industry. (In my row, half the people were asleep.)

It wasn't just a matter of Gates' skills as a speaker but also of the ideas he was

Still the mainstream press equates Microsoft with the future of our industry. For example, Steven Levy and the editors at Newsweek known more for color-bynumbers linear thinking than strategic insight - recently devoted a cover story

to Gates in which he talked about the future of comout ers. In doing so, they did

both journalism and IT a disservice Even a modest bit of reporting would have revealed that most of the \$6 hillion that Microsoft is spending on R&D is focused on protecting existing product lines rather than on creating new franchises. Microsoft's strategic weakness is its repeatedly demonstrated inshillity to generate sustainable busin nesses outside its core competence of

operating systems.

Indiana's Choice

Editor's note: The news that

Workforce Development

the Indiana Department of

had signed a deal with Tata

America International Corp.

that could have resulted in

from Indio being brought in

as many as 65 IT staffers

to work on a project un-

leashed a flood of letters

both before and after the

What's AT issue is not whether the contraction

process was fair, but whether this

should be allowed ["Job Agency

Hires Foreign Help," QuickLink

42838), it would have been cre-

alive of someone in the indional

its unemployment lists and put to

gether a learn made up of unem-

aren't geed to think; they're paid to

pendent consultant

New Jersey, Jim.Tennyson@

ONE POWER to Republican In-

ana state Sen. Jell Drovin

niowed IT workers. But people

get the lowest cost.

Xcel Systems Inc.

Xoelsystems.com

Jim Tennyann

state government to search through

state rescinded the contract.



connect No. 2: People believe Scott McNealy but they scoff at their local Sun Microsystems sales mos Thirteen hours after

Gates' Comdex speech McNealy gave his What followed was a brilliant. no-props-required tour de force explanation of where the industry has been and where we are some Later the 200 ohus Colem-

el attendent at the Com-law CIO Boot Camp were asked whether they more admired the thinking of Microsoft's chief software architect or Sun's CEO. The

answer was unanimous for Sun's boss Herein lies the disconnect, McNesly and his senior team are spooky smart and have thought hard and lone about how our industry works. The top of the house at Sun has architected a plausible, affordable and practical alternative path to the Microsoft hegemony

Unfortunately, this message isn't the one being delivered by the Sun sales force, which is perceived by most IT leaders as being little more than coinoperated hox sellers. Sun's value force is the least influential and respected of

all the major vendors Prior to pulling out the order form Sun salespeople need to channel the powerful ideas of their leader and reconnect themselves to the marketplace. They need to articulate what McNealy's bir ideas mean for works day IT leaders

If Microsoft can jettison its addiction to and fetish with Windows and if Sun can escape the papachialism of he sales force, we might see a tech boom that makes the dot-com era pale in comparison, If not, doubts about IT's value will continue to grow to the detriment of us all. Q 43195

WANT OUR OPERAN?

More columnists and links to archives of previous columns are on our Web site: ru.computurworld.com/columns

READERS' LETTERS

and his legistation that would doub low such ndiculous mensuvers. A state agency whose very oursone is to assest state residents with finding amplement should not be reading work to oversees firms Dan Dormer

Serior systems programmer Port Ludious Work ddenven@olypen.com

Opps ARE that hundreds of poocutstanced work are received upment compensation from the state. They should be given first op-

contunity at those yobs. Not only would the state get the job done, but some neonie would come off of unemployment rolls. Every government agency should be required to include some type of

"local workforce" requirements in contracts. We may not be willing to stop large corporations from sendincludes memors but we should be able to stop our government agen-

cies from doing if John Schoetti, CISSP Saint Cloud, Fla.

G000 JOB, Gov. Kernan ["Env Contract," QuickLink 431571, As an IT employee who is constantly seeing if workers' livelihood shapped

overseas or overtaken by overseas workers, it's refreshing to see some one in government who is concerned about the thousands of unemployed U.S. workers. I had the pleasure of living in South Bend ind when Jos Kernes was moved. He did an outstanding inh there, and

it looks like his great work is continuing at the statebourse Edwin Shaffer Data center production manager Chicago

e f shaffer@hormail.com

Eve-opener MAYE DEDUCED why Neil Mont-

portery is scowling in the picture accompanies the article "Fires. Everywhere "[QuickLink 42407]. As a medimarket CEO, he is receiving duly e-mail reports on the activity of individual sales representativ and the timely delivery of individual ontiers. This is an outstanding exavrole of an information system providing the errong individual with an overabundance of irrelevant information. Are decisions being made on a daily basis by the CFO at

Davis Controls that remains this data? Are the outcomes achieved by the activity at Davis engrised to these decisions enhanced by the consideration of this data? These

dally management records do prounder undustable undustee on the own formance of the grantzeton, but they should be provided only to those who are responsible for the management of that particular facut of operations - a sales morager.

for example Of course, if this implementation of the Macola Emergrise Suite enabled Davis to eliminate its sales manager, transfer sales menege ment responsibility to the CEO, and in doing so improve both sales force efficiency and executive leadership

effectiveness, please known my previous paragraph. Nate Brandstatur

Assistant vice president Lo. Sierra University, Riverside. Calif. abrandatiblations of

COMPUTERWORLD welcomes comments from its maders. Lattices will be edited for brevity and clarity They should be addressed to James Eckle, letters editor, Computerworld. PO Box 9171 500 Old Connecticut Path, Frankingham, Mass. 01701. Fax: (506) 879-4843.

E-mail. letters@computerworld.com. Include on address and phone number for immediate verification

For more letters on these and other lapsos, so to



8,784,834 DAILY TRANSACTIONS.



ONE ATTENTIVE SAN SWITCH.

THE CISCO MDS SAN SWITCH. Your Fibre Chennel SAN solution may handle your workload now. But what ebout next month? Or next year? In it time to held the to a pure Fibre Channel environment or explore the option of an IP epoproach to SAN? Now you can choose both. Introducing the Cisco Mich Samily of waterice. They grow. They edget. They evoke. They offer Fibre Chennel for high performance date center applications. FOIP and optical technology for distance. And ISCS for scalebility, Need to add a new application? Just cold new Need. Are you ready to take on the future of your data? You could be. Now.

Visit cisco.com/sen to learn more.

THIS IS THE POWER OF THE NETWORK, NOW.



INTRODUCING ENSEMBLE



THE FASTEST WAY TO MAKE YOUR APPLICATIONS PERFORM TOGETHER

Imagine your applications - both legacy and new - performing together as an ensemble.

That vision can become a reality surprisingly quickly with Ensemble, the comprehensive integration platform with all the functionality you need to rapidly complete any type of integration project on deadline and on budget. Even complex projects you may have struggled with in the past.

With its unique fusion of powerful technologies for application integration, development, deployment, and management, Ensemble enables extremely fast integration and rapid development of "composite applications" – new business solutions that integrate data, orchestrate business processes, and enhance the value of legacy applications. You'll see real-world evidence of this in the customer testimonial section of our web site.* Ensemble is exciting new software from

InterSystems. Over the past twenty-five years our high performance products have been deployed in more than 100,000 mission-critical systems around the world.

We're so confident that Ensemble is dramatically faster than any other integration technology, we'll be happy to begin our partnership with you by conducting a pilot project. To pursue this, contact us at:

www.InterSystems.com/Ensemble/Pilot



*Read how companies like yours have integrated applications faster with Ensemble: www.InterSystems.com/Ensemble/Customers
If you are a System Integrator in need of a rapid integration platform, come to www.InterSystems.com/Ensemble/Customers

TECHNOLOGY

FUTURE WATCH
The New Internet
Researchers say PlanetLab promises
a faster, more reliable and more secure Internet, but it will take years
to accomplish. Page 36

SECURITY MANAGER'S JOURNAL Single Sign-on Effort Falls Short When Mathias Thurman's company merges its directories and moves toward a single sign-on system, the implementation has some undesired effects. Pana Gr QUOTE OF THE WEEK

Toys for techies are gone from enterprise
in budgets, but technology investment is
essential if companies are to move ahead or
even keep up with the competition.

WINDOWS SERVER 2003:

Columnist Tomary Peterson, page 44

Some six months after its launch, early adopters and consultants give Windows Server 2003 a thumbs up for turning many services off by default, but security

concerns still remain

BY CAROL SLIWA

HERE ARE GOOD reasons
why expectations have
run higher for Windows
Server 2003 from a security standpoint than
for any prior edition
that Microsoft Corp. has
released.

With its April launch, Windows Server 2003 became the first operating system to ship since Microsoft commenced its much-touted Trustworthy Computing initiative in earnest, after Chairman Bill Gates sent the company's employees a memo in January 2002 telline them that security would

be the "highest priority." Soon after Gates issued the memo, Microsoft shut down Windows production for 10 weeks to train engineers in writing secure code. The company delayed Windows Server 2001 for rough-

sayed windows server JOJS for roughly a year, in part to allow more time for intensive source-code analysis, threat modeling, penetration testing, buffer overrun checks and security sudits. The natural question becomes this: Is Windows Server 2003 living up to its billing? Some say no. More say it's

too early to tell.

Better Security by Default

Early adopters, analysts and consultants agree that Microsoft has made improvements — most notably, disabiling many features and functions in the default install to reduce the surface area available for backers to attack. Internet Information Server 6.0, for instance, is turned off by default. And overall, Microsoft shut off or reduced privilence for more than 30 services in

Windows Server 2003.

You design the role of the server and run on only things appropriate to the task at hand. That is the greatest security feature we've seen and taken advantage of in Windows Server 2003; any Scott Campbell, director of IT operations at First American Title Insurance Co. in Santa Ana, Callif. The area con in Santa Ana, Callif. The one pany is currently certifying applications to run on Windows Server 2003.

in preparation for a gradual rollout to 172 servers.

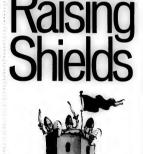
But early adopters have yet to reach a verticit when judging the new operating system from a vulnerability standpoint. Most have oeither tested one ployed Windows Server 2003 at large scale or in a wide enough range of senarios to tell just how solid it just how solid in just how solid in the

narios to tell just how solid it is.

"We want to see at least two quarters' worth of data — and I don't care
about patches. I want to see the penetration test results," says Jeremy
Lehman, a remior vice president who
heads the technology group at New
York-based Thomson Financial, which
has migrated about 20 servers to Windows Server 2001.

Some security experts are already dubious. They point out that some of the vulnerabilities affecting older Windows operating systems also plague Windows Server 2003, as demonstrated through patches that have been issued.

Continued on page 32





The distribution of the control of t



indows XP Profess in

NEW! IBM ThinkPad R40

S) item Featur

1,279

NEW! IBM ThinkPad T41

Siltem Featire

1.769° »

With the best data protection available on a wireless notebook, you can work where you like. Knowing there's a power looking out for you.

It is easy to such referebly when you choose the cooptional performance of these little Transferther indicates with intelligenture models servicely that all any effect whose secure PCD available. Because BMI ballat in an entit layer of protection of electroscies for presented and obsciences, making a settlement byout for the unswitzerful or secure PCD. It is extracted to the company of the protection of the company of the protection of the present of the unswitzerful or the protection of the protection of

Order online

NO STORES AN ADMINISTRATION CHARGE AND ADMIN

Continued from page 29

"I still give them an F." says Russ Cooper surgeon general at TruSecure Corn. in Herndon, Va. "We keen petting examples of how nothing's changed."

But where some see a black cloud others see a brighter horizon. Microsoft CEO Steve Ballmer noted this fall during keynote presentations that Windows Server 2003 had four critical vulnerabilities at the ISO-day mark compared with 17 for its predecessor at the same stage. "It's insufficient but it's real improvement," he says.

The total vulnerability count was 32 for Windows 2000 and 14 for Windows 2003, according to Mike Nash, vice president of Microsoft's security business unit. Nash notes that certain vulmershilirian rated caltical for some products are moderate for Windows Server 2003 because of its more secure

default configuration. He adds that the vulnerability comparison to Windows 2000 is fair, since there are more prople sentinizing the product than there were three years ago.

But Marc Maiffret, co-founder and chief hacking officer at security services vendor eEve Digital Security Inc. in Aliso Viejo, Calif., doesn't view the statistics that Microsoft has put out - or statistics from any vendor — as a credible gauge. He says some vendors may peglect to mention that some advisories address multiple vulnerabilities, or they may silently address a collection of perabilities via a service nack "Two never seen anyone do a valid breakdown on the numbers. Everyone seems to have some type of agenda," he says.

And Tom Bittman, an analyst at Gortner Inc., says Windows 2000 Serve er was a "monster release," so it's nor surprising that its vulnerability count was higher in the first 150 days. In contrast, Windows Server 2003 is an incremental release, he says. "The billing was Trustworthy Computing, the most secure operating system. The impression people took away is we would see a dramatic improvement." Bittman

ease. "This is a bottle they cannot win. All they need is one dangerous securiry problem out there, and it'll look like they haven't solved their problem."

New Security Features

Microsoft introduced a collection of features and enhancements to help improve security in Windows Serve 2003. Administrators who use publickey infrastructure services, for in

stance, will be able to automatically enroll and renew certificates. They will also be able to control access to resources based on an employee's role and set policies to prevent executable programs from running on computers. Michael Stephenson, a Windows Server group product manager, says another helpful new feature that shinned with a resource kir the net

work access quarantine service. Jets users check the state of computary sccessing the network and block VPN access if necessary. Yet no matter bow many security enhancements the new server operating

system has, early users most frequently mention the new default settings that lock down services that might be vulnerable to attack. Instead of knowing how to turn services off, IT shops now have to learn

how to turn them on, says Bob Lamoureux, chief architect at Thomson Financial. He says the process isn't difficult, although it doesn't hart to check out the installation guides beforehand. Although some early adopters think Microsoft did a good job with the new

default settings, TruSecure's Cooper still doesn't think enough services are turned off. Internet Explorer, for instance, is enabled at a high security level in Windows Server 2003 for serv er administration purposes.

KFY CHANGES but Cooper questions why the Web browser is enabled To learn about key security at all. "I need to know that I ests in Window ww 2003, go online don't need to reboot my mission-critical server be-O QuickLink 43103 cause of the latest IE cumo

lative update," be says. Other features that Cooper thinks should not be on the box include Outlook Express, Media Player and Remote Assistance - "just all these tools that are unnecessary for a server and

have been exploited in the past. Cooper says he conducted a study at the end of July and found that almost every vulnerability affecting Windows 2000 Server also affects Windows

Server 2003. "This certainly doesn't bode well for all the extra work Microsoft claims to have out into the code been " be seen

Garrage's Birrman away he shinks Mt. crosoft will eventually have to consider a complete Windows code reprise "It's a lot easier to design secure code

from Square I than it is to go back and find possible holes," he says. It has certainly been a source of frustration for Microsoft to learn of bure

that date back to Windows NT 40 Steve Lipner, directory of security ensincering strategy at Microsoft ways the company is, in come cases, finding new vulnerabilities in old code including new patterns of buffer overruns. Lipper says Microsoft does a postmortem to determine the cause of every vulnerability, trying to find out if it occurred because of a process error, a technology problem or a programmer's mistake, "Then we'll respond anpropriately to try to update what we do and how we do it to make sure that

our customers don't suffer through the cost of that problem sesin " he rese But some users are growing frustrated. David Bryant, senior information security engineer at St. Petersburg. Fla.-based Raymond James Financial Inc., which has migrated about 25 of its 500 Windows servers to the new operating system, says he's concerned that

the buffer overflow problems of prior Windows versions affect the latest iter ation as well. He says be fears that Microsoft may be depending on users deploying firewall technologies to secure its software, rather than focusing on writing secure code

"I'm disappointed that it appears that Server 2003 will again be an OS that I can count on for several critical petches every month," he says.

Maiffret at eFve says it will take another six months to determine whether the vulnershilities that have surfaced are flukes or signs of more to

come in Windows Server 2003. But the early appearance of default remote pretem vulnerabilities - "the most severe type of vulnerability you can have in a Windows operating system" - has led him

to conclude that Windows Server 2003 is not substantially improved securitywise and that companies with large Windows 2000 Server installations will find no cost justification to migrate. Users of Windows NT 4.0 will be more compelled to move, aithough security may not be the driving factor.

Steve Yeager, vice president of information systems at WestAmerica Mortgage Co. in Oakbrook Terrace, Ill., says his company was in growth mode and

Windows'

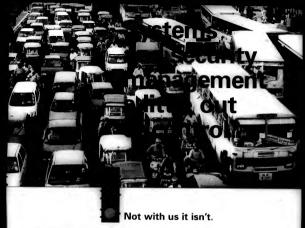
needed to upgrade its aging NT servers. The new security features were simply a "side benefit," he says. Gartner analyst John Pescatore views Windows Server 2003 as a major leap forward, and be estimates that, in

the lone run, it will have fewer critical security flaws than Windows 2000. He notes that Gartner originally advised clients to wait 16 months to deploy the new operating system but has now reduced that by six months. Some organizations may want to

wait for security improvements that are on the way. Ballmer recently outlined new technologies that will help to lock the memory so worms and exploits can't write into "bad pieces of memory after a buffer overrun problem." New perimeter inspection technologies and role-based security configurations are due in the second half of next year with the first service pack for Windows Server 2003.

"Microsoft has made some significant advances in the security of Server 2003," says Bryant, "but it still needs more work." © 42985

Computerworld's faikumar Viscoan contributed to this story



We see management a little differently from the rest of the crowd.

At NetiQ, we don't see a problem. Only solutions. Managing your Windows server environment is easier than ever with Microsoft Operations Manager, And. as a key Microsoft partner, NetlQ extends Microsoft Operations Manager to manage and secure your entire entarprise, whether you're driving UNIX, NetWare, Linux, Windows...or all of them. NetIQ. We're the management people. And nobody does management smarter, Nobody.



CIO eBook! Get your free copy of From Chaos to Control: The CIO's Executive Guide to Managing and Securing the Enterprise, www.netiq.com/manageability



MOVING DATA

Banks Asked to Prepare Plans To Operate in Atomic Disaster Bankers were asked yesterday to take immediate steps Fa

nuncers were asset yearcray to take immediate steps help keep the nation's financial mechanism functioning the event of a nuclear attack. John J. McCloy, chairman

MOUNTAI

The idea of trucking records to a hidden, blastproof underground storage facility sounds so very 1950s. but increased regulation and electronic delivery systems have stoked the demand for Iron Mountain's off-site archiving services.

HE DRIVE FROM the Pittsburgh airport to the secret underground facility winds through rolling Pennsylvania farmlands and woods. past quaint old churches and through time towns that time has overlooked. The access road to the site is unmarked but written directions say to turn left just after a certain picnic shelter.

A guard stops the ear and searches it. Satisfied that the visitors don't have weapons, cameras or tape recorders. he advises driving forward to the next checkpoint and honking the born There, at the mouth of an old limestone mine, a massive metal state grinds open, admitting the car to an underground guard post for more

searches and interrogations. fust when it seems that every concewable security measure has been attended to, a guard hands the visitors a fire extinguisher and says it must be carried in their vehicle whereaur it mucht travel in the 20 miles of tunnels that run through the mine

One might reasonably assume that this records-storage facility, owned by Boston-based Iron Mountain Inc., is just miles of tape racks and filing cabinets. It is that, but it also houses a 130acre underground city, where 1900 people work for 180 companies and

government agencies. It has its own data center has service fire department and power plant, as well as a water system with a five-acre underground reservoir.

The facility is a yast catacomb 200 fort below the surface, where electric golf carts scurry among mostly unmarked rooms and vanits with elimates tailored for the treasurer these house - paper documents digital magnetic media, microfilm, video and audio tapes, photographs, original prints of Hollywood films, human tis-

suc samples and things Iron Mountain won't tell you about. The exact location of this the broost underground storage facility in the world, is revealed only on a produto-know basis Digging at the mine began in 1902. It produced limestone for U.S. Steel Corp 's nearby mills until it was abandoned in 1950. Four years later, a company Iron Mountain later acquired converted it into an atomic bomb shelter for customers' vital records and, if nec-

Over the ensuing decades, Hollywood studios sent their precious original films there for lone-term storage federal agencies sent sensitive records

and the people who created them there for secrecy and safety, and corporations sent their vital paper records there for archiving. Not much changed



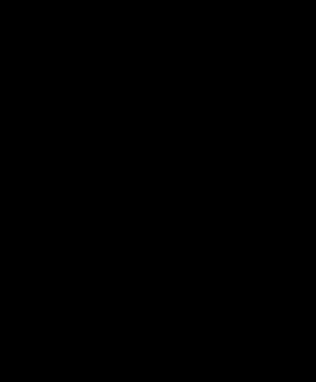
over those years. **New Rules**

Then came the scandals on Wall Street - at Enron, Arthur Andersen, World-Com and dozens of other companies. Coppress, the U.S. Securities and Exchange Commission and the stock exchanges reacted with a raft of new record-keeping and anchiving rules and regulations, while employees. shambolders and customers unleashed

a torrent of litigation. Even in situations where no legal re-

quirement for archiving exists, judges in corporate governance lawquits are demanding backup files of electronic





MOVING DATA

Banks Asked to Prepare Plans To Operate in Atomic Disaster ankers were saked yesterday to take im help keep the nation's financial mechanic

The idea of trucking records to a hidden, blastoroof underground storage facility sounds so very 1950s. but increased regulation and electronic delivery systems have stoked the demand for Iron Mountain's

HE DRIVE FROM the Pittsburgh airport to the secret underground facility winds through rolling Pennsylvania farmlands and woods. nast quaint old churches and through timy towns

off-site archiving services.

that time has overlooked. The access road to the site is unmarked but written directions say to turn left just after a certain picnic shelter A must d stone the car and searches

it. Satisfied that the visitors don't have weapons, cameras or tane recorders he advises driving forward to the next checkpoint and honking the born There at the mouth of an old lime stone mine, a massive metal rate grinds open, admitting the car to an underground guard post for more searches and interrogations.

Just wheo it seems that every conceivable security measure has been attended to, a guard hands the visitors a fire extinguisher and says it must be carried in their vehicle wherever it might travel in the 20 miles of tunnels that run through the mine.

One might reasonably assume that this records-storage facility, owned by Boston-based Iron Mountain Inc. is just miles of tape racks and filling cahinets. It is that, but it also houses a 130acre underground city, where L900 people work for 110 companies and

sovernment agencies. It has its own data center has service fire densetment and power plant, as well as a water system with a five-acre underground reservoir

The facility is a vast catacomh 200 feet below the surface, where electric golf carts scurry among mostly unmarked rooms and vaults with climates tailored for the treasures they house - paper documents, digital magnetic media, microfilm, video and audio tapes, photographs, original

sue samples and things Iron Mountain woo't tell you about. The exact locatioo of this, the largest underground storage facility in the world, is revealed only on a need-to-know basis Digging at the mine began in 1902. It produced limestone for U.S. Steel

doned in 1950. Four years later, a company Iron Mountain later acquired converted it into an atomic bomb shelter for customers' vital records and, if necessary, customers' executives. Over the ensuing decades, Holly-

wood studios sent their precious original films there for long-term storage, federal agencies sent sensitive records and the people who created them there for secreey and safety, and corporations sent their vital paper records there for archiving. Not much changed over those years

New Rules

Then came the scandals on Wall Street - at Enron, Arthur Andersen, World-Com and dozens of other companies. Congress, the U.S. Securities and Exchange Commission and the stock exchanges reacted with a raft of new record-keeping and archiving rules and regulations, while employees, shareholders and customers unleashed a torreot of litigation.

Even in situations where no legal requirement for archiving exists, judges in corporate governance lawsuits are demanding backup files of electronic





records, most notably e-mail messages Companies that can't produce them often settle the suits on unfavorable

terms and sometimes pay still fines.

In response to the resulting surge, in demand for safe and secure digital records storage, from Mountain earlier this year opened a 5,000-sq. fl. data center include its secret underground facility. The data center includes 54TB of storage capacity and the equivalent of 1,586 TI communication lines con-

occiting it to the world above.

The \$1.5 billion company also rolled out a digital records archiving service that customers can use to send the Pennsylvania facility document scans, e-mail and instant messages, financial records, Web content, images and anything else that can be put into

digital form.

So what was first a limestone mine and then a facility where companies shipped paper records and magnetic media to protect them from atonic blasts has been transformed ooce again, this time into a place where companies can send and retrieve their digital archives over privace WAN

links or through the Internet, bypassing the guards and the big steel gate. An IT vice president at a large New York brokerage, who saked not to be named, says his company sends Iroo Mountain some 2 millioo e-mails and instant messages per week. The messages flow continuously over two dedicated lines — one to a data center in Boston, the other to the Pennsylvania facility. The company has also set up an encrypted virtual private network (VPN) over the Internet as an emer-

gency backup channel.

The IT manager says Iron Mountain writes two copies of the brokerage's message traffic to nonerasable WORM (write once, read many) media, in ac-

(write once, read many) media, in accordance with a new SEC requirement. He says outsourcing the job met the company's four goals: fast implementation, distributed user access to archived messages, good audit trails on user access and compliance with federal regulations.

Outsourcing message archiving was also attractive because it would have been too time-consuming and expensive to set up the WORM infrastructure in-house and provide two separate physical facilities for media storage, the manager says.

But be acknowledges that the arrangement carries with it some worries. "You are entrusting very sensitive data to an external yendor, so that's al-

ways a concern," he says.

Digital records archiving is a logical function to outsource, says Alan Pelz-Shaspe, an analyst at the Boston office of Ovum Inc., an IT research firm. But even a company that specializes in archiving and uses state-of-the-art

A NEGLECTED DISCIPIINE

TRADITIONALLY, experitations have hough of excess immergement eth crataloging are storage of inactive paper excess. They may have document immergement opposition, extre emphasis to an affice collaboration, document creation and publishing but he have points of archiving restlends, session scaled after, physical storage, socially, white-of methcids and social storage, socially, white-of methcids and social sessions are distinctly as the physical session of the session of the other sessions.

> transc surroung by reamon it eactrans messages, which companies typically haven't considered archiveble records, can be expecsely troublesome.

Ex 850.00 their agreement to trackcolery traces are the contraction of their contraction of the contraction of their contraction of the

up tage rotation to be just for disaster recovery.
Don't let the tages just hang astoned like a tot of poople do, put them on a 30-day rotation."
Commercial ERP and CRM systems typically don't have records management and archiving capabilities that meet requisitory requirements.

technology can't address problems that occur before records can be captured by a records management system. "Typically, the business processes are not in place, and some of the data

tem. "Typically, the outsiness processes are not in place, and some of the data is in paper, some is electronic, some is in attachments to e-mail, and guess what? They have no idea which is which and where it is," he says.

The Digital Archive

In Iron Mountain's system, a front-end processor running at its data center takes incoming records and applies customer-supplied business rules that specify retention periods, adds tags to aid in information auditing and retrieval, applies digital fingerprints and provides other records management and security functions. It writes the records to disk and later to tape, while creating a searchable index that's accessible by the customer via a Web browser (see diagram). Destruction of records can occur automatically, based on customer-supplied rules, or by customer command.

LU URULITLINL

Pt | Rimmler says, Until they do, she says, users will

nd | need add-on products such as BM's Content

Manager and Records Menager, Fabrica Cogn.; 1 Records Manager or Records Menager (Cogn.; 1 Records Manager or Records Manager (Cogn.; 1 Records Manager or Records Manager or Ma

are giving up some control and taking on another level of risk when you outsource." Dickling what to care is complicated by the fact that any given like, such as a word procuring document, usually exists in six or seven places to a company's IT systems, step, Alam Part-Sharpe, an analyst at Oxurs, Moreover, companies lack the book—and corretiness the will — to classify files as official business; records to be arrived or "gartages" that should

be deleted as soon as possible.

be deleted as soon as possible.

If the biggest records management charlenge of all, according to Petr-Sharps, is this.

Nobody wants to do that work. It's boring, and
first as RDX tous have CDS and CPDs seying. Well, I guess we have to do thes because

If is the law. But there's absolutely no enthusistem for it.

- Gary H. Anthers

The Digital Archive service, which costs about \$12 per month per gigabyte, is a remote records management system that applies file-level logic and accessibility to information for compliance and other purposes. Iron Mountain offers a remote service called Electronic Vaulting for off-site bulk.

data protection for disaster recovery. For whatever purpose — disaster recovery, legal compilance or simply preserving corporate history — Iron footbash 50d mine will receive more and more of its intenstory electronically, asys the IT vice president at the New York Proteinger, His firm is likely to move in that direction as it begins to to move in that direction as it begins to the protein of the protein of

THE NEW BULES OF STORAGE
Lines such as HPMA end the Sarberee-Oxfoy Act are
forcing IT managers to re-examine they storage

QuickLink 42525 stress_computerworld.

The **N**ew Internet

Researchers are building a new Net, one layer at a time. By Lucas Mearian

ISS ANO, HE HS developing the next incurration of the Innernet say it will be faster, more reliable and more sescure. Moreover, it will be selfaware and able to determine the best way to deliver data

and services.

The most prominent nextgeneration Internet project is
Planettaly, a research testbed
that's been in evistence for
about a year and a half,
It consists of 160
servers hosted at 65

sites in 16 countries.
The goal is for Planet-Lab to grow to 1,000 widely distributed server nodes that connect into the majurity of the current Internet's regional

and long-haul backbones.
"It's a playground for new services. Depending an which service you're most excited about, that's what PlanetLab will louk like," says Frans Kasshoek, a professor of com-

puter sownee and engineering at MTE, a PlanetLab developer. Kashook and uther scientists are developing architectures that will automatically distribute data to multiple points around the globe in order to speed delivery and will have multiple network paths to ensure that data goes to its destination. The network will read data requests and direct them to the servers closest to the roto of ordination or the roto of ordination or the roto of ordination or the servers closest to the roto of ordination to the servers closest to

fill the requests.

The challenge for scientists is to put intelligence into the

network itself so it can understand the information that's being transported across thousands of servers and millions

sands of servers and millions of miles of cable. PlanetLab, which is up and running for the research community, is a joint project being led by Intel Corp, and about 70 university scientists around.

Just as the Internet was an overlay octwork un top of the telephone network,
Planet Lab provides for an additional layer on top of the Internet.
In turn, services such as streaming media, peer-to-

as streaming media, per-topeer file sharing and videoconferencing will be layered un top uf PlanetLab. One network layer atop

One network layer atop PlanetLab is IRIS, or the Infrastructure for Resilient Internet Systems. IRIS promises to speed up searches and information transfers by using a self-organizing, peer-to-peer overlay network to position data closer to end users and thwart denial-of-service artacks by balancing loads

tacks by balancing loads among Web servers. John Kubitatowicz, an associate professor at the Universary of California, Berkeley, says IRSI is a radical departure from the client-server model and application-specific ic environment of today's Internet because of its ability to spread data and rebuild it using sophistraced algorithms. Kubitatowicz is also working on another layer to ride on top of Planettab, called Ocean-Store, ability is a utility extrasion, and the control of the control of the Store, ability is a utility extrasion, and the control of the control of the Store, ability is a utility extra-

service for storing data across millions of servers. Backup Plan

In OceanStore, Internet service providers and others would be paid to act as repositories for the world's information, which would be kept as multiple copies, protected by encryption and automatically rebuilt should any single stor-

age point fail.

"If you think about the classic problem with archival storage, data resides on tape in some basement, and 10 years later you can't read the tape," Kublatowicz says.

"The only way data can be preserved over the long haul is if it's separated from the physical media it's originally stored on. That means the places where it is stored must change over time," he explains. OceanStore's software does that by breaking data into many tiny, encrypted parts and moving them across a vast array of Web servers that can be driven by policy engines to resove or move data to differ-

ent formats over time
"You'd poy a monthly fee so
a company to provide a storage service, and in turn, that
data would be kept secure for
hundreds uf years, protected
via encryption, and it could be
accessed from anywhere in
the world quickly because it
would be cached locally," Kubistowice saws, "Basically."

you'd be able to plug into the wall and get sturage." Kubintowicz says companies could use OceanStore for routing data in-house to servers across their entire infrastructures for mostler routing.

dundancy and resiliency.

Netbait is another layer running on the PlanetLab testilies of the PlanetLab testilies of the PlanetLab testilies on the PlanetLab testilies of the PlanetLab

files to help stop them in their tracks.

"It'll look at the way [a virus] is trying to penetrate a Web site. That would allow you to have an early warning of worm or virus behavior, allowing for faster diagnostic analysis and the ability to warn

you to have an early warning of worm or virus behavior, allowing for faster diagnostic analysis and the ability to warn people about how to protect themselves from it," says Kevin Teixeira, a spokesman in Intel's research division. While evienties are eur. Software that enables Web servers and routers to repair themselves. A content distribution setwork that automatic My spreads data across the laternet. A programmable network measurement serance.

A programmable network measurement ser vece. A wome detection are fractions detection are fractions detection are fractions detection are fractions detection are some fractions detection are fractionally detection. A soll-organizable perforpace between detections to previously detection and fractions for the fractions of the fr

rently using PlanetLab to disseminate research information, one of the most promising aspects of the network for everyday users is its ability to provide multiple copies of data or video on servers throughout the world, closer

to those requesting it.

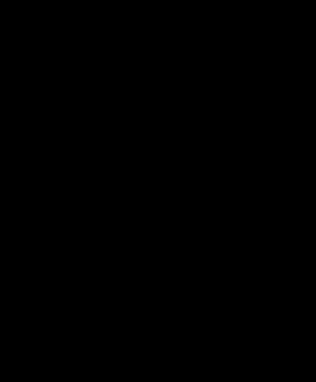
"There are mure servers
and more clever algorithms
that know how to send data to
the closest computer and

cache is there," Kanshook says.
The new Internet will unfold over many years, be says.
"Just as the telephone [network! emerged, this overlay of intelligent networks will grow and populate, and there'll be certain versions of it that people will eventually standardize

and populate, and there'll be certain versions of it that people will eventually standardizun," Kaashoek says. "In an evolutionary way, the Internet will upgrade itself over time." © 43069



The spine of the problem of the control of the cont



The New Internet

Researchers are building a new Net, one layer at a time. By Lucas Mearian

estanchers developing the next incarnatioo of the Internet say it will be faster, more reliable and more secure whoreover, it will be selfaware and able to determine the best way to deliver data

and services.

The most prominent nextgeneration Internet project is PlanetLab, a research testbed that's been in existence for about a year and a half. It consists of 160 servers hosted at 65

servers bosted at 65 sites in 16 countries.
The goal is for PlanetLab to grow to 1,000 widely distributed server nodes that connect into the majority of the current Internet's regional

and long-haul backbones.

"It's a playground for new services. Depending on which service you're most excited about, that's what PlanetLab will look like," says Frans Kaashoek, a professor of computer science and engineering

at MT. a Planet lab developer. Kaashook and other scientists are developing architectures that will automatically distribute data to multiple points around the globe in order to speed delivery and will have multiple network paths to ensure that data gets to its destination. The network will read data requests and direct them to the servers closest to the point of origination to fulficial time.

fill the requests.

The challenge for scientists is to put intelligence into the

octwork itself so it can understand the information that's being transported across thousands of servers and millions

of miles of cable.

PlanetLab, which is up and running for the research community, is a joint project being led by Intel Corp. and about 70 university scientists around

the world.

Just as the Internet was an overlay network oo top of the telephone network.

PlanetLab provides for an additional layer on top of the Internet.

In turn, services such as streaming media, peer-topeer file sharing and videoconferencing will be layered on top of PlanetLab. One network layer aton

on top or PlanetLab.

One network layer atop
PlanetLab is IRIS, or the Infrastructure for Resilient Internet Systems. IRIS promises to
speed up searches and infor-

matioo transfers by using a self-organizing, peer-to-peer overlay network to position data closer to end users and thwart denial-of-service attacks by balancing loads

amone Web servers. John Kubistowicz sa szer ciate professor at the University of California Berkeley ence IPIS is a radical denanture from the client/server model and application-specific environment of today's Internet because of its ability to spread data and rebuild it using sophisticated algorithms Kuhiatowicz is also working on another layer to ride on ton of Planet ah called Ocean-Store, which is a utility-type service for storing data across

millions of servers. Backup Plan

Descrip Fight
In OceanStore, Internet service providers and others
would be paid to act as repositories for the world's information, which would be kept as
multiple copies, protected by
encryption and automatically
rebuilt hould any single stor-

age point fail.

"If you think about the classic problem with archival storage, data resides on tape in some basement, and 10 years later you can't read the tape," Kubiatowicz says.

"The only way data can be preserved over the long haul is it's separated from the physical media it's originally stored on. That means the places where it is stored must change over time," he explains.

Organization's afragre does.

that by breaking data into many tiny, encrypted parts and moving them across a vast array of Web servers that can be driven by policy engines to resave or move data to different formats; over time

resave or move data to different formats over time.

Thord pay a monditude in the contraction of the control of the congas service, and in turn, that data would be kept secure for bundreds of years, protected via encryption, and it could be accessed from anywhere in the world quickly because it would be cached locally. Yeablottowice says. "Basically, you'd be able to plug into the wall and get storage."

servers across their entire infrastructures for greater redundancy and resiliency. Netholi is another layer running on the Planet Lab testbed. Like a doctor tracking a new virus in the body in order to discover how to fight it, Nethati will be able to track worms and viruses as they appear and watch how they propagate, developing proflies to help soon them in their

for routing data inchasse to

tracks.
"I'll look at the way [a
virus] is trying to penetrate a
Web site. That would allow
you to have an early warning
of worm or virus behavior, allowing for faster diagnostic
analysis and the ability to warn
people about how to protect
themselves from it," asys Kevin
Feisnica, as polesmann in Intel's research division.
While acidentists are cur-

rently using PlanetLab to dis seminate research information, one of the most promising aspects of the network for

ing aspects of the network for everyday users is its ability to provide multiple copies of data or video oo servers throughout the world, closer to those requesting ii. "There are more servers and more clever algorithms

"There are more servers and more clever algorithms that know how to send data to the closest computer and cache it there," Kasshoek says. The new Internet will un-

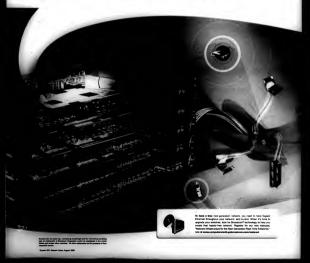
fold over many years, he says.

"Just as the telephone [network] emerged, this overlay of
intelligent networks will grow
and populate, and there'll be
certain versions of it that people will eventually standardize
on," Kasshoek says. "In an
evolutionary way, the Internet
will upgrade itself over time."
C 45089

YOUR NEXT-GENERATION NETWORK COULD BE JUST A SWITCH AWAY



More and more of your destroor, notationals and servers are multiposed with Gapital Element—but are your selections also usedly for the norman dimension of medium bearined. Selections helpfy integrated Gapital betweets, descripted in speech for overfletches minigration from Fast Element to Gapital Element, end to end. That's why the top 5 selection manufactures have to Benacion when they were highly-proferrances, Fast-proven Gapital Element extra level. That's why the top 5 selection manufactures have to Benacion when they were discontinued and convention. So whether you've upgrading your entire enterprise, your monitor officer or yet also called approximation. So whether you've upgrading your entire enterprise, your monitor officer or yet also described prefer your level from condition or your enterprise your work of prefer you have done conditions.



A world of IT solutions.





Bell has a commissed IT solded for page halones, in water what basiness page in it, and hard size it is, from Providings' arrors fastering fairs' Nation' processor to welvoor appoint to the Provincian' storage and hard size it is, from Providings' finals, in July and the contract of the contract of

PC Magazine Editors' Choice Award
PowerEdge 1750
— October 28, 2003



Fig. 12 and 12 a

Dell offers a wide range of ratiable award-witering technology * Iren* Ferburt* 4 Processor at 7 stalleall delivered from a single point of contact—and our expert sales · Description in head forecast 4 forecast in 2 William Description to least formant & Description or Visida. associates are there to help you find the technology than's meta Opposite to train renduct 4 in * 129AB SOBAH ECC DOS SORAM DE 10 ASSI fee what has ness - HICE COME SING DOCUMENTS ADES (220) SIDA (DE MAIL DOME Upgratable to 20000 of Internal Hard Drive Stanger . Degradable to 34009 of internal Hart Drive Service . Debedded know? PRO Swaper* NO A'A 100 DE NAD Caratrille Avolution # 1. V. 28s7 Districted Speed Phone Sects Support + key PRO Equest NO Once you've selected the right technology. Dell can help you get it up and * 1-Yi Next Business Day On Site Service running suickly and cost-effectively with our custom on-site installation 3-Yr Rest Business Very Smell Business Pricing Small Regress Propo and configuration services \$399 TransportCertdeseture too After installation, Cell can help turn your employees or IT staff into Database Web experts on your new technology through a variety of training and Hosting Servers certification courses—belong increase your business' less term productivity Service Support • Irini" Xeon" Processor at 2.43Gits * Intel® Agen Trecogner at 2 405(4) Print Agent Processor of 2 Agents Print Agent Processor Complete 1 to to 2 2000 to The support doesn't and at the sale Dell's award-warrier covers and Deal Hear" Xeon" Present Capable 13p to 3,20041 100 100040 CC 000 500444 Etc. to 1001 support offerings help ensure that your new network remains up and A Drivenskip to SCO of SCOAM 1968 (15K BPM) Ultra32E SCSI Her Sweep Hard Drive. running-with Web, phone or on-one service and support . 3658 (10): 5759 Litra 222 SCS; Not Supply Start Dress Imagrated Dual-Orannel Lifera32) SCS Correpte Active ID Busel for Monitoring System Health • 3 Yr Meet Business Day On-Site Service • 3 Yr Mant Business Day On-Site Service + Snot Buren Press Scotl Business Promp. \$2029

4-Way Servers

POWEREOGE 6600**TOWER SERVER

Pagh-Spaced Ministers Celtical Tensor Server

• hear Security Tensors or \$1,000 to

• Could Hard Tensors or \$1,000 to

• SEVAN COR SCHAM

• SEVAN COR SCHAM

• to be 1202 SEVANO COR CO SCHAM

 Up to 1202 280AHs DOR LCC SSHAM
 Up to 12528 Maximum Internal HOD Storage
 Exheetide Ultra SCD Adapter,* 1305Mbb) Controller
 Soundard Har Swap Hard Divisor Hot Swap Redundant Internal Hot Graph Redundant Power Supplies
 12 Hot-Ray FCX State;

\$3999 * low at \$100 com and \$10000.

Storage Options

. 4x40GB (190GB) DE Foot Drive

DELL POWERWAUT 2256 NAS
Optionized File Stranger Across the LAN

intel® Colorum Processor at 25th

Movern' Windows' Powerd Names Association Strange

- 20448 DOS 2504 Na (p. 10-25)

\$1799 Hard Street County

OSLETEMO

I you have more than 30000 of strongs, wort several-dell-completenegarisaytics for a process on DelCoMC strongs around.

Network Switches

POWERCONNECT 3324* SWITCH

High Purkermone Workgroup Devices (2 Dayper - 34 fast Etherner Parts plaz 2 Cappins (plassis (2 Dayper and 2 SP I havecomer Device Stom for Risac) - Stadoug Functionality of Up to 152 Parts - Admired Barbard Management and Sourith Feeburg I hobitive Stanford CD and Easy—Use Wiley Interface I hobitive Stanford CD and Easy—Use Wiley Interface

\$499

Solutions that fit. Easy as

Click www.dell.com/bizsolutions Call 1-877-776-3355

On Lane and Lane and the real a

Single Sign-on Effort Falls Short

With no input from IT security, a system is adopted that leaves out some agos and creates headaches. By Mathias Thurman

we had solved one set of IT security problems by getting the human resources department to properly train new hires, another has cropped up with our IT team and a new single sign-on system it has deployed. The system was designed without input from the IT security team and at least one other department that will SECURITY be affected. Now

we're dealing with the issues after the fact. The single sign-oo project addresses a

significant problem. There are several ways for employees to log into different parts of our FT infrastructure and each requires entering a separate set of credentials

The single sign-on system will make life easier for users. giving them access to a broad set of applications and services with just one over ID

The IT group has been talking about this for some time. but several obstacles have kept the project sidelined until now. The biggest was the fact that we bought Novell Inc.'s eDirectory directory services and iChain identity management software to handle the authentication of our People-

Soft system But we also deployed Windows 2000, which uses Active Directory for authentication and our Exchange server uses vet another directory struc-

Unfortunately, these infrastructures were designed separately, with no common vision, so there's a lot of duplication. To make matters worse, none of these directo ries were mirrored in anticipation of a cutastrophe Sure we backed up the data, but we didn't have another system on standby to take over the sethentication process in the event of a hardware failure This week, the IT group and I finally began migrating users

on eDirectory that's fully mirrored, clustered and loadhalanced We mirror the data to another data

to a rinela authenti-

cation system based

center, so in the event of a fire. malicious damage or other event, the alternate data censer will automatically begin accepting authentication re-

The No-Name Log-in This new system makes loeging in very convenient except for one problem. Instead

of loseing in with our traditional usernames (we used a naming convention that closely matches each employee's actual name), we're using

Identifying the users requires matching the IDs to the users' names, it will be an annovance and take

a lot of time.

Personally, I didn't even recall that I had an employee ID, much less remember the num ber itself. Until now, our IDs. had been used only by the HP and finance departments for personnel tracking so I was surneised when I received an

e-mail stating that I must start using mine Like other employees. I was given a week's advance notice and informed that I would also been to change my password. The decision to use our em-

ployee ID numbers in this way has implications for the IT security team. It will end up creating more work for my group and some other groups, such as the IT help desk. Here's who: In our case, most of the audit and security software we name. Because our log-in names are based on the users'

match the person to the event when there's a problem. With the new system, all we see is a number. Identifying the users requires the extra step of matching the IDs to the users' names. Given the frequency with which we'll need to do that, it will be an annovance and take a lot of

real names, we can quickly

Neither the IT security group nor the IT help desk was included in the decisionmaking during the design of the single sign-oo system. Had we been involved, both groups would have voiced strong arguments against using curployee IDs for this purpose.

While I don't yet know why the decision was made, I would certainly agree that there is a sense of anonymity in using oumbers. Perhaps that was the driving factor. So far, the problem isn't so bad, because only a few hundred people have been cooverted to the new system. But soon the eotire company will he wring it

Not-So-Single Sign-on There's another problem with the new system: It's not inclugive of all our applications For example, our software developers use a content werchanges in software under

rioning annifortion that reads. development. There are also a dozeo or so external development sites several of which are outside of the U.S., that use this system. To configure this application to use single

sign-on would be a nightmare. Also, the sales department uses CRM tools. Since the information this system contains is highly confidential, the IT team decided not to incorporate the sign-on for it in the eoterprise directory.

Within the security department we have RSA SecurID servers configured to authenticate systems and network administrators to resources within the infrastructure. It would be nice if we could rie that whole system into the enterprise single sign-on application, but we would have too much to lose if there was a se-

curity breach We use SecurID for access to our most critical systems which are responsible for our revenue and cornorate image But for now, we are going to keep all of these specialized environments senarate from the environment that caters to the mass employee populace

So, what's the lesson learned here? It's that even as my company and others throw around the term single sim-on. it's rare that an organization of our size can institute a true single sign-on environment that works for all applications enterprisewide.

WHAT DO YOU THINK?

SECURITY LOG





Start gr w .g. our business sec. /-

"NETCRAFT FINDS THAT 1&1 IS THE WORLD'S LARGEST WEB HOST AND ALSO POSTS THE GREATEST GROWTH WITH A 508% EXPANSION FROM MARCH 2002 TO MARCH 2003"

NETCRAFT LTD. INDEPENDENT SURVEY, JULY 2003

1.877.GO1AND1 WWW.1AND1.COM

Part of United Internet, a public company with 3:000 participate employees it Preciusly gaved only large providers in the USA & row vering and user affectly -Competing Vicosed on send businesse like power size. 1922, 2: 3 and customers & the Industry's Jowest Churn rates 4 data centers operated in USA & Europe with 1:0,000 senses us & running - Own backborne with 1:2,000 Mbit connectivity - Traly Intracellules solutions including CRM & e-Commerce

3 YEARS FREE

PLAN INCLUDES: WEB SPACE

CONNECTIVITY

EMAIL WEBSITE FEATURES

CRM/E-COMMERCE APPLICATIONS

SUPPORT





Google \$25 VOUCHER

THE CONFIDENCE TO OFFER 3 YEARS FREE

Radware Releases Security Switch Radware Inc. in Mahwah, N.J.,

DefencePro, a high-perforce security switch that's gred to handle multigigal n, DefensePro is availa Pricing starts at \$25,000.

Miranoint Undates Message Server

Miranoist Inc. is releasing a ne no of its Monsaco Serve nail appliance, called the 45-Series, and a new Mea Director MO450 security ago of Portium III chips with mor d Mirapoint, The Ma ver tine begins at \$15,000. To pricing for Message Directs at \$25,000.

Beta for Speech Server Released

month Corn. last week re peach Server. The new beta effect inc.'s S t-to-Speech Engine 3.0. Als ement Kit. The fi are Development N.C. 11 raines of Seesch Server ent luit are due in the alf of sent year.

Proxim Offers Free Wireless Upgrades

rim Corp. this week will repoints. The upgrades will R copier for IT me

TOMMY PETERSON

Make Your List, Check It Twice

S THE YEAR DRAWS to a close we find ourselves surrounded by the festive traditions of the season. Jolly old elves and prancing reindeer have been trucked in and deposited on the manicured lawns of corporate headquarters and bask in the glow of the lights proclaiming "Season's Greetings" to passing motorists. Miniature trees and plastic candles twinkle

cheerfully in corners of offices and cubicles. There are way too many sweets every-Grown meo and women in

IT shops are making wish lists and formulating their iustifications for having those wishes fulfilled. Of course, since they're preparing their pitches for the business side of the company instead of for a short, whitebearded our with a body mass index of 35, their areuments rest on productivity

and ROI rather than oo whether the seeks have been naughty or nice Those lists CIOs and other high-

level IT managers make of their spending priorities for the year ahead will be checked more than twice as their companies navigate into and through 2004. Toys for techies are gone from enterprise IT budgets, but technology investment is essential if companies are to move ahead or even keep up with the competition. In these budget confrontations, however, discretion is often the better part of valor. Below are my picks for the technology areas that IT managers should focus on for now if they want to avoid duking it out with their CFOs - and probably losing.

Storage, especially storage m Storage falls a little short in the glamour department, but in an information economy, companies must have somewhere to keep and some way to manage all that information. Adding to the pressure is the growing array of state and federal

regulations requiring busipesses to retain even more information. As the mounds of data grow, users demand easier access to stored data and flexibility in storage resources. Management systems and virtualization software come with hefty price tags. But no one would accuse an IT manager of going for the glitz for proposing them, and storage is central

to almost any business Storage also includes the backup and disaster recovery technologies that ease the minds of everyone in the company fretting about terrorism, natural disasters and trees

growing around power lines in Ohio. Security. You won't have to fight for this ooe. Even through the past couple of years when the remnants of the technology bubble were unattractively solattered all over the economy companies were spending on IT security. Antivirus software, intrusion detection and prevention systems and patch management curtems are all essential investments just make sure they are implemented along with well-crafted security policies and enforced best practices, which are as

important as the technology. Ideotity and access management systems that include provisioning and strengthened authentication mechanisms can increase productivity alone

with security in your organization. ing. Carefully chosen and deployed business intelligence systems do the magic

trick at the heart of IT: They change amorphous piles of data into useful information and open an avenue to insights that can transform a business. Just be wary of the seemingly endless varieties of software that offer "resistine" monitoring of every peristaltic burble and hiccun in the enterprise, to on an-

nament business and # Middleware and other integration tech-

nainties Heterogeneous IT environmeots are a fact of life - even a blessing. say some. Companies that want to continue getting value from their legacy systems as they add new systems and applications will need the technology to link

them together. I fear that this list is the IT equivalent of the socks and underwear your mother always gives you. But these are the essential technologies, the ones in which your company can't afford to fall behind

This isn't the year to ask for the pony The adoption of wireless is inevitable. and the technology has already penetrated to the center of come industries but for most businesses, it's still a novelty I'm convinced that Web services will eventually transform IT, but the technology still operates at the margins, maybe because the standards stack is still in flux. Or perhans because infrastructures level Web services are just beginning to

receive attention. Certainly take a hard look at opensource options when you're shopping for

technology. Keep an eye on voice over IP, the return of CRM, and new search and textmining technologies that will help you take a crack at squeezing some intelligence out of all that unstructured data piline up in your company.

And be patient. There's a good chance the economy will be stronger a year from now. The technologies will mature and improve. Maybe it will be time for the pony - or at least the latest version of PlayStation. © 43260

WART OUR OPE

CLARION CX:soo with 350 GB storage Navisphere* and Access Logis* management software Connectine *portor switch Installation and support



Find an authorized EMC Velocity² Partner at www.EMC.com/velocity.

-

parries and annual

SIMPLY EASIER

IREPASS

INFEREMOTE ACCE



Behind the Eight Ball

Bart Perkins says the big outsourcers are being undercut by smaller unstarts It's bad news for giants like IBM and EDS, but it could mean falling prices for their clients Page 54

The Pros & Cons of CMM

Outsourcers tout their high Canabillity Maturity Model ratings, yet many U.S. companies can't take advantage of that quality and cod up paying for more than they need. Page 50

Preventing P2P Ahuse Corporate IT managers can learn from their

counterparts on college campuses who have become experts in combating the security and network overload problems caused by peer-to-peer file swapping. Page 52



A brain drain is coming when the economy improves, and your top IT talent may be headed out the door.

By Kathleen Melymuka

ALF YOUR IT MIDDLE MADAGES may be planning to quit as sooo as the economy improves. Recent surveys and anecdotal evidence indicate that many have already checked out psychologically and are just waiting for the chance to move on. If you don't prepare for this exodus, when the money loosens up and IT initiatives begin to

flow, you may find that you lack the talent to deliver. The impending IT brain drain is "one of the dark secrets of the industry right now" says Vanghan Merlyn. an analyst at The Concours Group in Kingwood.

Texas. "Wherever I so, the grumbling amazes me 1 People tell me awful tales about working, and

their lovalty is shot." adds Tom DeMarco a consultant at Cutter Consortium in Arlington, Mass., and author of Slack: Getting Past Burnout, Busywork and the Myth of Total Efficiency (Broadway Books, 2002). "The problem is that they're all liable to leave at the same time.

A luly 2003 survey of 509 U.S. middle managers by Accenture Ltd. found that 38% are currently looking for another iob and 10% plan to go job hunting wheo the economy improves. Though the survey didn't focus exclusively on IT, Ed Jensen, a partner in the human performance practice at Accenture, says IT managers at various client sites have told him they're essentially already cone

Late last year, another survey, by Spherion Corp. in Fort Lauderdale, Fla., and Harris Interactive Inc. in Rochester, N.Y., questioned 3,278 U.S. workers and found that 51% want to leave their current jobs (up from 33% in 1999). The dissatisfaction is even more pronounced in IT, where 40% of workers reported poor or fair job satisfaction compared with 28% of the total sample

"There's a large amount of dissatisfaction out there," says Scot Melland, CEO of Dice Inc., a Webbased recruiting firm in New York. "Some of it might be fair and some a reaction to how the world has changed, but it's real."

A Seismic Shift

Job changing after an economic upheaval isn't unusu al, but observers say recent history and a seismic demorraphic shift will make the coming pheno worse than in the past, especially in IT, where budgets have been axed particularly hard. "Many IT peo ple were downsized, and those who remained find hemselves literally overwhelmed," Merlyn explaine

"People are feeling used," DeMarco agrees, add at baby boomers remember similar treatment dur-

Emergent Workers

worker crosses all boundaries of age, education, industry size, but IT workers are among the most enarigent, according to Sphe Here's how emeratent workers differ from traditional engineers.

O OxickLink a3810

t armitte the long term
Want) -mployer to provide the career path

Connerned with security stability and lear direction Vants rewards based on seniority

ing the downsizings of the early '90s, and many Gen
Xers saw their pare us laid off in those days. "So any
logalty they might feel is complicated by the fact
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "prime-case" workforce — 25 to 54—
to 2000, the "pr

their parents were screwed," he says.

As a result, Gen Xers came to IT expecting tu work for many companies over the course of their careers. "They're much more open to saying, 'If I carl' get it here, I'll find it elsewhere," "Jenson says, "It's a differ-

ent mind-set — a free-agent mind-set."

Since that ability to move has been curtailed by the tight job market, there's a pent-up desire for change, even among those with few com-

plaints, Merlyn says.
The Emerging Workforce Study
conducted by Harris and Spherion,
which has measured changes in workforce attitudes since 1997, Bas documented a significant shift. As late as
1997, 34% of workers surveyed still
held 'traditional' values that empha-

size long-term company loyalty (see sidebar ahove). This year, only 21% did, and in IT, only 9%. The rest held "emergent" or free-agent values, or were migrating in that direction.

Despite this shift, Spherion estimates that more than half of U.S. companies still use traditional management styles and as a result are in danger of losing their emergent workers at an even higher rate. Replacing [T] workers who leave won't he as

casy as it looks, DeMarco says. "The buffer of unemployed IT people could be hired up in the first two or three months," he notes, "and workers in IT are not fungible." Those available are disproportionateby generalists without the skills you'll be looking for, he says.

Besides, you'll need to do more than replace; you'll need to grow

The U.S. Bureau of Labor Statistics forecasts that the top five fastest-growing job categories through 2000 are all in IT. software applications engineer, support specialist, systems software engineer, network and systems administrator, and network systems and data communications analyst

Meanwhile, the vanguard of baby boomers will soon be reaching retirement age, and the numbers to

mergent emp

Commits to perform now Wants responsibility for career path.

Concerned with opportunities for lea and growth

Wants rewards based on performance

jobs can enhance career terms of work contribution

to 2000, the "prime-age" workforce — 25 to 54 grew by 54%. Over the next 20 years, it will grow by only 3%.
"We're in the middle of a major demographic shift," says Jensen "hi's one thing to say people are turning

over, but the pool of talent that is available to replace them is tight, and that will drive the price up." In fact, the cost per hit has increased nearly 7P's since 1998, according to the Saratoga Institute Inc., a Santa Clarra, Calif-Issado human Carra Santa Clarra, Calif-Issado human Carra Cooperas, Spharton estimates that the Cooperas, Spharton estimates that the

cost of replacing lost emergent workers could be about \$1 million for an IT group of 100. And that's assuming you can replace those who leave. Given all these impending pressures, the postrecorery decampment

will be happening at the worst possible time. "The problems that arise are myriad: the loss of knowledge in the organization managing the workload, disruption as people leave and the expense of replacement," Jensen says.

Heading Off the Exodus

managers may be blindsided by the exodus because when jobs are scarce, people don't complain. "People might grumble around the cooler with collectagues, but they probably don't grumble upwards." Merlyn says. "You keep your head down and lay low." But there are things you can do to assess and miti-

gate your risk.

Look for signs of unhappiness, and draw managers out on how people are feeling.

Check confidential employee surveys for signs that IT employee engagement has gone down. "That could be a leading indicator that people may move on when things turn around," Meetlyn says.

It was earl survey the effect IT worldome by to con-

duct apot surveys on one or two issues, or put a few questions on an employee portal to identify segments of your FT organization that are particularly disenchanted, Jensen says. "Then you can take more targeted steps to deal with the I potential I loss of key people."

Demunical cardidly with the wedfores. "Employees understand and can handle the fact that the computs tough!", bensen says. "They want to feel part of the process and understand why decisions are being made."

■ Cancel overtime. "Constant overtime is a deadly cause of burnout and the sense of being used," De-Marcoware.

Marco says.

• Here now. "You have to be ahead of the curve in the staffing work that's going to have to be done." DeMarco says. By taking extra work off people, you may change their minds about leavine. Even if they do

leave, each person you hare now is one you won't have to hire later in a tougher, more expensive market. ** Know your "A" players, and make sure you're doing everything you can to keep them happy. Merlyn says.

■ Only year people focused on the future.

Even with a limited bodget, you can generate excitement and equinistic bodget, you can generate excitement and equinistic bodget, you can generate explayers in rethinking the vision and safragers; proutitioning the terms, appraising tolds and adjusting
roles. If your company has been laying off people
and just shifting the work to other, you may find
rolumdancies that can be eliminated to take the
pressure of its and move the survivors on to higher
resistant of its and move the survivors on to higher

pressure off and move the survivors on to highervalue activities.

Even if you're not able to move ahead on a growth agenda yet, he says, strategizing and planning. "Seels constructive, and it gets people congaged in thinking about an optimistic future rather than a pessimistic necess." D. 43001

Melymuka is a Computerworld contributing writer. She can be reached at kmelymuka a yahoo.com.

Warning Signs

Computeneoxid's 2003 Job Satisfaction Survey uncovered the kind of grumbling that will lead to an IT brain drain.

42% said they're lissatisfied with their companies.

56% reported that their level of satisfaction with their companies has lecreased compared with one year age.

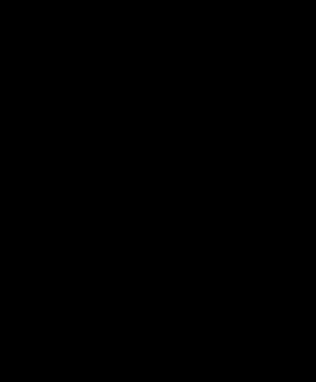
ocreased compared with one year age. 69% don't think they're working to their full potential.

55% said they're dissatisfied will their opportunities for advancement.

82% reported finding their work stressful

59% reported being more stressed out than they were a year ago.

50% disagreed with the statement, "My employer is successful at building employee loyalty." Gare SSI reporture (If welver, transper, covalents and contracted)





ing the downsizings of the early '90s, and many Gen Xers saw their parents laid off in those days. 'So any loyalty they might feel is complicated by the fact their parents were screwed,' he says.

As a result, Gen Xers came to IT expecting to work for many companies over the course of their careers. "They're much more open to saying, "If I can't get it here, I'll find it elsewhere," "Jensen says. "It's a different mind-set — a free-agent mind-set;

Since that ability to move has been curtailed by the tight job market, there's a pent-up desire for change, even among those with few complaints. Mertyn savs.

The Emerging Workforce Study conducted by Harris and Spherion, which has measured changes in workforce attitudes since 1997, has documented a significant shift. As late as 1997, 34% of workers surveyed still beld 'traditional' values that empha-

size long-term company loyalty (see sidebar above). This year, only 21% did, and in IT, only 9%. The rest held "emergent" or free-agent values, or were migrating in that direction.

Descript this shift, Soberion estimates that more

than half of U.S. companies still use traditional management styles and as a result are in danger of losing their emergent workers at an even higher rate. Replacing IT workers who leave won't be as easy as it looks, DeMarco says. The buffer of unemployed IT people could be hired up in the first two or there months, be notes, 'such workers in IT are

not fungible." Those available are disproportionateby generalists without the skills you'll be looking for, he says.

Besides, you'll need to do more than replace; you'll need to grow.

The U.S. Bureau of Labor Statistics forecasts that the top five fastest-growing job categories through 2000 are all in IT: software applications engineer, support specialist, systems software engineer, network and systems administrator, and network systems and data communications analyst.

Meanwhile, the vanguard of baby boomers will soon be reaching retirement age, and the numbers to

replace them just aren't there. According to Harvard University economist David T. Eliwood, from 1980 to 2000, the "prime-age" workforce — 25 to 54 grew by 54%. Over the next 20 years, it will grow by only 2%.

"We're in the middle of a major demographic shift, says Jensen. "It's one thing to say people are turning over, but the pool of talent that is available to replace them is tight, and that will drive the price up." In fact, the cost per hire has increased nearly 71% since 1998, according to the Saratogs Institute Inc., a Santa Clara, Calli-based buman re-

OISORUNTLED WORKERS
Sources unit at Pricewaterhouse-Coopers, Spherion estimates that the cost of replacing lost emergeed workers could be about \$1\$ million for an IT group of 100. And that's assuming you can replace those who leave.

Given all these impending pre-

sures, the postrecovery decampment will be happening at the worst possible time. "The problems that arise are myraid: the loss of knowledge in the organization, managing the workload, disruption as people leave and the expense of replacement," lengen says.

Heading Off the Exodus

Despite the convergence of risk factors, some IT managers may be blindsided by the exodus because when jobs are scarce, expose don't complian. "People might grumble around the cooler with colleagues, but they probably don't grumble upwards, 'Merlyn says. "You keep your head down and lay low." But there are thisney you can do to assess and mini-

gate your risk.

"Look for signs of unhappiness, and draw managers out on how people are feeling.

out on how people are feeling.

Check confidential employee surveys for signs that IT employee engagement has gone down. "That could be a leading indicator that people may move on

when things turn around," Merlyn says.

• If you can't survey the entire IT workforce, by to conduct spot surveys on one or how issues, or put a few questions on an employee portal to identify segments of your IT orusnization that are particularly disenchants.

ed, Jensen says. "Then you can take more targeted steps in deal with the [potcottal] loss of key people." a Commenciate candidy with new workers. "Employees understand and can handle the fact that the econmay is tough," pennes says. "They want to feel part
of the process and understand why decisions are
being made."

© Cancel overtime. "Constant overtime is a deadly cause of burnout and the sense of being used," De-Marco says.

Bits now. "You have to be ahead of the curve in the staffing work that's going to have to be done." DeMarton cosays. By taking extra work off people, you may change their minds about teaving. Even if they do leave, each person you hire now is one you work have to hire later in a tougher, more expensive market.

Ricow you. "A" players, and make sure you're doing overything you can to keep them happy. Merlyn says.

Get your people focused on the future.
Even with a limited budget, you can generate ex-

Even with a limited budget, you can generate excitement and optimism, Merly says. Engage your "A players in rethinking the visioo and strategy, repositioning the team, upgrading skills and adjusting roles. If your company has been laying off people and, int short company has been laying off people and, int short company has been laying off people and the strategy of the polarization of the strategy of the strategy of the polarization of the strategy of t

Even if you're not able to move ahead on a growth agenda yet, he says, strategizing and planning 'feels constructive, and it gets people engaged in thinking about an optimistic future rather than a pessimistic present." O 43001

Melymuka is a Computerworld contributing writer. She can be reached at kmelymuka@yahoo.com.

Warning Signs

Compositemental's 2003 Job Settlefaction Survey ancovered the hard of

thing that will lead to an IT brain draw

56% reported that their level of

transference with one year age.

to their fell potential.

GGP/s said they're absentiated with their appartmittee for advancement.

12% reported theiring their work obsessed

50% reported being more acrossed

50% desperat with the photocont, "My conplayer in constant at habiting complayer impair,"



THE PROS & CONS OF CONSTRUCTION OF CONSTRUCTIO

Outsourcers tout their Capability
Maturity Model ratings, but they may be
overkill for some clients. RY JULIA KING

WHAT'S IN A CMM RATING?

Does hiring a CMM Level 5 service provider guarantee that an outsourced software project will come in on time

will a higher CMM rating automatically mean higher costs?

What impact does earning a rating have on software quality? These are just a few of the questions confronting IT managers charged with

These are just a few of the questions confronting IT managers charged with contracting out an increasing volume of application development and maintenance work to lower-cost offshore

outsourcers.

Developed by the Software Engineering Institute (SEI) at Carnegie Mellon University in Pittsburgh, CMM — short for Capability Maturity Model
— is a set of risorous standards for
software development that's based on
five levels. Of some 70 companies
worldwide that have publicly acknowledged reaching the highest rating of
Level 5, about 50 are in India, according to the SEI and Garrner Inc.

Not surprisingly, these Indian outsources aggressively toot their CMM rating, marketing themselves as topnorch developers with standardized, repeatable processes to place for delivering the highest quality software. Executing standardized processes also works to keep down costs, enabling Level 5 providers to poss on additional strings to customers, according to

Sangita Singh, head of strategic marketing at Wipro Ltd., an Indian outsourcing company with U.S. head-

quarters in Santa Clara Calif Research confirms that higher CMM levels correlate with fewer software defects (see chart below). But the highest CMM rating doesn't necessarily guarantee the greatest savings for customers. 'The data on quality and maturity levels shows there is a definite improvement in costs and [on-time project completion) schedules," says Bill Peterson, program director for software engineering process management at the SEL "But whether the supplier passes the savings on to the buyer, we don't know. That's more business than anything to do with the logic of costs. What we are saving is that as a

What we are saying is that as a Level 5 (suppliers) are better and they're able to charge more, not less," Peterson adds

Peterson adds.
At the same time, a Level 5 CMM
rating comes with no guarantees, and

io some cases, it may eveo be overkill, experts say. "CMM is a great discipline, and it is a great designation to have," says Bart Perkins, a Computerworld columnist

and managing partner at Louisville.

Ky-based Leverage Partners line.

Ky-based Leverage Partners line.

two which helps CIOs manage IT suppliers. "But the reality is that if an outsource is at Level 5 and the client is at Level 1 or 2, the client desort have the in.

CAM SURSET

client is at Level for 2. the client docsn't have the internal discipline to take advantage of the Level 5 provider's standardized routines."

CMM SUBSET
The Solvier Engineering in fact or a reasonable in the or it reasonable routines."

CQuesti A 42850

Totalines."

Defining system or project requirements is a prime cample. "With CMM, the cotie requirements process is very rigidly defined. A level's requirements document is very detailed and explicit and has mercire associated with it. Preside replains." But a company at a CMM Level 0 or 1 cold like we their requirements on metrics. The level of the proposed of the company at a CMM Level 0 or 1 cold like we their requirements on metrics. The level of company are company at a company at the compa

The upshot, says Perkins, is that touting a CMR Level 5 rating to a Level 1 buyer "comes down to touting a feature that's of fittle value. It's like a car salesman in Alaska touting a car? great air conditioning, Ir may be great, but you can't take advantage of it." Yet some companies, such as Farmers Instrumere Group in Los Angeles, concared with Level 5 oursources exclusively, even though they may be unable to repeat all of the Denefits of

"The CIO dictated that we only do

CMM Checklist

Questions to ack your out forcer about its ratings under to Capability Makurily Model

What was your last published assessment level?

When did that occur? (After

out of date, the SEI says.)

Who performed the lead

Who was no the occurre

men! Icam?

What improvements have you made since the last assessment?

business with CMM Level 5 partners. It was a way of distinguishing the best companies from the rest of the pack," explains Alan Stanley, a program man-

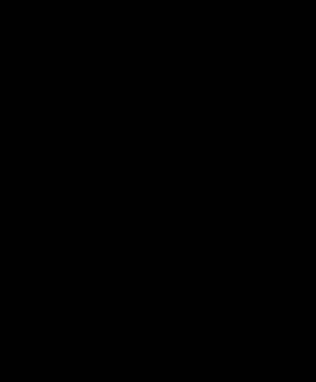
ager at Farmers.
"Beyond that, we don't take advantage of CMM. We tend to dictate how we want work done. We allocate work

and processes based on what we do
here, so I don't think we've
really benefited from the
CMM Level 5 side," he adds

Helen Cousins, former CIO at Parsippany, N.J.based Cendant Corp., says she believes that hiring a Level 5 outsourcer is a way

to raise the har for your own IT organization. "One of the things we gained out of necessity is the ability to more clearly define what we want," says Cousins, who is now CIO at Dex Media Inc. in Deaver. "I've also noticed that whoo people working side by side are with people who are disciplined, it starts rubbing off."

But in a lanuary 2003 report on the subject, Gartner analyst Partha Iyengar cautioned that users should also enmember that CMM standards are descriptive rather than prescriptive meaning that "they describe what must be done, rather than how it must be done," Consequently, a vendor can specify a certain way of executing a process that isn't the best possible implementation of that particular process. In other words, Ivengar says, "CMM standards certification in no way easeantees that a vendor's internal implementation of these standards is bestin-class in any way." O 42492



THE PROS & CONS OF

Outsourcers tout their Capability Maturity Model ratings, but they may be overkill for some clients. BY JULIA KING

MIT'S IN A CHIM RATING? Does biring a CMM Level 5 service provider guarantee that an outsourced

software project will come in on time

Will a higher CMM rating automati-cally mean higher costs? What impact does earning a rating

have on software quality? These are just a few of the questions confronting IT managers charged with contracting out an increasing volume of application development and maintenance work to lower-cost offshore

Developed by the Software Engineering Institute (SEI) at Carnegie Mellon University in Pittsburgh, CMM

- short for Canability Maturity Model - is a set of rigorous standards for software development that's based on five levels. Of some 20 companies worldwide that have publicly acknowledged reaching the highest rating of Level 5 about 50 are in India accord-

ing to the SEI and Gartner Inc. Not surprisingly, these Indian out sourcers aggressively tout their CMM rating, marketing themselves as toonotch developers with standardized repeatable processes in place for delivering the highest quality software. Evecuting standardized processes also

works to keep down costs, enabling Level 5 providers to pass on additional savines to customers, according to

Sangita Singh, head of strategic marketing at Wipro Ltd., an Indian outsourcing company with U.S. beadquarters in Santa Clara Calif

Research confirms that higher CMM levels correlate with fewer software defects (see chart below). But the hist est CMM rating doesn't necessarily guarantee the greatest savings for customers. "The data on quality and maturity levels shows there is a definite improvement in costs and [on-time project completion) schedules," says Bill Peterson program director for eaftware engineering process management at the SEL "But whether the supplier passes the savings oo to the buyer, we doo't know. That's more business than

anything to do with the logic of costs "What we are saving is that as a Level 5, [suppliers] are better and they're able to charge more, not less," Petersoo adds. At the same time, a Level SCMM rating comes with no guarantees, and

in some cases, it may even be overkill. experts say "CMM is a great discipline, and it is a great designation to have," sava Bart

Perkins, a Computerworld columnist and managing partner at Louisville, Ky.-based Leverage Partners Inc., which belos CIOs manage IT suppliers. "But the reality is that if an out-

sourcer is at Level 5 and the client is at Level 1 or 2, the CMM SINGET client doesn't have the internal discipline to take advantage of the Level 5

provider's standardized Defining system or proi-

ect requirements is a prime example. "With CMM, the entire requirements process is very rigidly defined. A Level 5 requirements documeet is very detailed and explicit and has metrics associated with it " Perkins explains. "But a company at a CMM Level 0 or 1 could have their requirements on the back of an envelope and

no metrics. The Level I companies are lucky if they write out two pages." The upshot, says Perkins, is that touting a CMM Level 5 rating to a Level I buyer "comes down to touting a feature that's of little value. It's like a car salesman in Alaska touting a car's great air conditioning. It may be great,

but you can't take advantage of it." Yet some companies, such as Farmers Insurance Group in Los Angeles. contract with Level 5 outsourcers exclusively, even though they may be unable to reap all of the benefits of

"The CIO dictated that we only do

CMM Checklist

business with CMM Level 5 partners. It was a way of distinguishing the best companies from the rest of the nock "

explains Alan Stanley, a program manseer at Farmers. "Beyond that, we don't take advantage of CMM. We tend to dictate how we want work done We allocate work

and processes based on what we do here, so I don't think we've really benefited from the CMM Level 5 side," he adds.

Helen Cousins, former CIO at Parsippany, N.J.based Cendant Corp., says she believes that hiring a

Level 5 outsourcer is a way to raise the bar for your own IT organization. "One of the things we gained out of necessity is the

ability to more clearly define what we want," says Cousins, who is now CIO at Dex Media Inc. in Denver, "I've also noticed that when people working side by side are with people who are disci-plined, it starts rubbing off."

But in a lanuary 2003 report on the subject, Gartner analyst Partha Iveness cautioned that users should also remember that CMM standards are descriptive rather than prescriptive. meaning that "they describe what mu be done, rather than how it must be done." Consequently, a vendor can specify a certain way of executing a process that isn't the best possible im-

plementation of that particular process. In other words, lyengar says, "CMM standards certification in no way guarantees that a vendor's internal implementation of these standards is bestin-class in any way." Q 42492

See information organized.
See access personalized.
See service recognized

TER

ful." Bird says, adding that the univer-

sity plans to release the application as

Differentiating between level and il-

an open-source project in the spring.

legal P2P files can be difficult for net-

work managers, since most colleges

have policies against viewing the con-

tent of files. The University of Miami

limiting all students to a maximum of

48MB of dedicated bandwidth

in Coral Gables, Fla., keeps it simple by

"We tell them to use it wisely to do

whotever they have to do. That could be downloading images from medical

ionerals or videos related to eshool

communications" notes CIO Lew

Temares. It also could be swapping

music files. Temares concedes which

is why the university has implemented

two network filters that sniff file trans-

fer protocols and eliminate those with

the known characteristics of P2P files that the university has identified as il-

legal. These include sites like Kazaa

At Temple, administrators are con-

hardware and software sup-

port to students whose

P2P programs and files.

computers contain illeval

and Blubster that are primarily for

downloading music

Preventina

Corporate IT managers trying to curb illegal peer-to-peer file downloads could learn from their counterparts on college campuses, BY JULIA KING the student handbook had also informed students about the university's downloading policies and the disciplinary actions that would be taken against violators

Icarus, short for Integrated Computer Application for Recognizing User Services, collects and combines data from all of the university's many disparate network management systems Once combined, the information can Δhuse be analyzed in a comprehensive

"We realized we had all of the last-

work monitoring and management] tools we needed. We just needed to find a way to use them all together Bird explains "By collecting data in one place, we're able to detect applica-

How It Works

pop-up message to the offending user's computer. If the user is a first-time violator, he is automatically directed to an educational

Web site that our. lines the university ty's octwork usage policy and specific details on his

particular violation. Secondatime offenders are immediately restricted to on-cameus Internet usage for a period of Our days. Third-time violators are out off

from all Internet connectivity beyond the campus and immediately referred to the university's judicial affairs office. We try to stick to cameus restrictioo as the most severe punishment, to minimize the impact on academic use. because there's plenty of legitimate applications that need to be accessed by

students," Bird says Since the start of the academic year in September, the system has uncovered 919 first-time offenders and only nine repeat offenders "It's been extraordinarily success-

M O'ROURKE, vice presiright infringement and network overdent for computer and inload problems that can result from formation convices at Temple University makes it a point to ask students in the classes be teaches whether they swan peer-to-peer music and video files. He

has yet to get oo for an answer. With 33,000 network users, 5000 of whom live on the Philadelphia campus, P2P file swapping has brought the university's network to its knees more than once, he says. At the University of Florida network

services supervisor Rob Bird at one point last year recorded 3.900 simultaneous network connections to Kazaz, a popular P2P music site. That figure represents almost half of all students who reside on the Gainesville cameus.

Colleges and universities are on the front line when it comes to combating the various computer security, copyusers swapping massive P2P files. As a result, schools have been forced to come up with effective systems not only for detecting bandwidth hogs, but also for differentiating between legitimate and illegitimate P2P file transfers and pulling the plug on illegal activity. In several cases, their tools and ractics have resulted in a significant reduction in P2P headaches, making them well worth a close look by corporate IT managers, many of whom are facing

the same problems Consider the University of Florida. Within an hour of implementing a homogrown network tool known as Icarus, network managers recorded an 86% drop in illegal P2P uploads to the Internet from the university's residence halls. Downloads dropped by 30%. School newspaper articles and

tion usage in new and unusual ways."

Whenever Icanus detects P2P activity on the network, the software sends a

sidering going a step further and implementing a policy that would deny **ICARUS FAO**

Get the details on the Lieven sty of Florida's core-source C. Control int 42075 Poor! about the latest some

schools are dealers with O QuickLink 47270

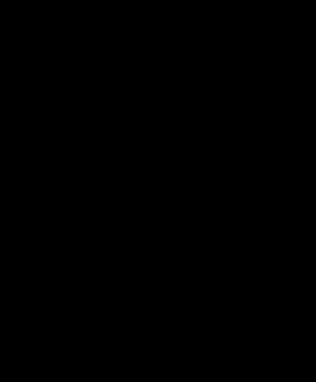
The university also recently nurchased an enterprisentide license for Symantee Corp.'s Norton

AntiVirus software which all students are required to install on their computers before they can tie into the universi-

"I doo't really want to work on fa computer) it takes me six or seven hours to rebuild because it has all this junk on it." O'Rourke says, "The Welchia (worm) alone has cost me at least \$400,000 in the last month just in time." Chuck Linebaugh, director of information systems at Chicago law firm O'Hagan, Smith & Amundsen LLC, says corporate IT managers like him have somewhat more leverage over employees than university network managers may have over students. Linebaugh's

firm locks out all P2P application programs and conducts weekly checks on all files for any illegal P2P activity Still, he keeps a close eye on the precautions that other IT managers, particularly university octwork managers, are taking on the P2P (ile-swapping front. One big reason, he notes, is selfpreservation. "If we're investigated and files downloaded by users are on our network, we're liable for that," Line

bough says. O 43111



Preventing Abuse

Corporate IT managers trying to curb illegal peer-to-peer file downloads could learn from their counterparts

on college campuses, BY JULIA KING tion usage in new and unusual ways."

IM O'ROURKE, vice oresilent for computer and information services at Temple University, makes it a point to ask students in the classes be teaches whether they swan peer-to-peer music and video files. He has yet to get no for an answer. With 33,000 petwork users, 5,000 of whom live on the Philadelphia campus, P2P file swapping has brought the university's network to its knees more than once, he says.

At the University of Florida, network services supervisor Rob Bird at one point last year recorded 3,500 simultapeous network connections to Kazas, a popular P2P music site. That figure represents almost half of all students who reside on the Gainesville campus. Colleges and universities are on the front line when it comes to combating the various computer security, copy-

right infringement and network overload problems that can result from users swapping massive P2P files. As a result, schools have been forced to come up with effective systems not only for detecting bandwidth hogs, but also for differentiating between legitimate and illevitimate P2P file transfers and pulling the plug on illegal activity. In several cases, their tools and tactics have resulted in a significant reduction in P2P bendaches, making them well worth a close look by corporate IT managers, many of whom are facing

the same problems Consider the University of Florida. Wirhin an hour of implementing a homegrown network tool known as Icarus, network managers recorded an 86% drop in illegal P2P uploads to the Internet from the university's resince halls. Downloads dropped by 30%. School newspaper articles and

the student handbook had also informed students about the university's downloading policies and the disciplinary actions that would be taken acainst violators.

icarus, short for Integrated Computer Application for Recognizing User Services, collects and combines data from all of the university's many disparate network management systems Once combined, the information can be analyzed in a comprehensive

"We realized we had all of the Inetwork monitoring and management] tools we needed. We just needed to find a way to use them all together." Bird explains. "By collecting data in one place, we're able to detect applica-

How It Works

Whenever Icarus detects P2P activity on the network, the software sends a pop-up message to the offending user's computer. If the user is a first-time violator, be is as

matically directed to an educational Web site that outlines the university's network usage policy and specific details on his particular violation. Second-time offenders

are immediately restricted to on-campus Internet usage for a period of five days. Third-time violators are cut off

from all Internet connectivity beyond the campus and immediately referred to the university's judicial affairs office. "We try to stick to campus restriction as the most severe punishment, to minimize the impact on academic use. because there's plenty of legitimate applications that need to be accessed by students," Bird says.

Since the start of the academic year in September, the system has unco ered 919 first-time offenders and only nine repeat offenders. "It's been extraordinarily successful." Bird says, adding that the unive sity plans to release the application as an open-source project in the spring entiating between legal and fi-

legal P2P files can be difficult for network managers, since most colleges have policies against viewing the content of files. The University of Mismi in Coral Gables, Fla., keeps it simple by limiting all students to a maximum of 4RMR of dedicated bandwidth "We tell them to use it wisely to do

whatever they have to do. That could be downloading images from medical inumals, or videos related to school communications," notes CIO I ew Temares, It also could be swanning music files, Temares concedes, which is why the university has impl two network filters that sniff file transfer protocols and eliminate those with the known characteristics of P2P files that the university has identified as illegal. These include sites like Kazza and Blubster that are primarily for

downloading music. At Temple, administ tors are con sidering going a step further and implementing a policy that would denv

hardware and software supnort to students whose computers contain illegal P2P programs and files. The university also

recently purchased an enterprisewide license for Symantec Corn's Norton AntiVirus software, which all students are required to install on their computers

before they can tie into the university's network "I don't really want to work on I a

computer) it takes me six or seven hours to rebuild because it has all this junk on it." O'Rourke says, "The Welchia [worm] alone has cost me at less \$400,000 in the last month just in time." Chuck Linebauth, director of infor-

mation systems at Chicago law firm O'Hasan, Smith & Amundsen LLC, save corporate IT managers like him have somewhat more leverage over employ ees than university network managers may have over students. Linebaugh's firm locks out all P2P application programs and conducts weekly checks on all files for any illegal P2P activity. Still, he keeps a close eye on the pre-

cautions that other IT managers, particularly university network managers. are taking on the P2P file-swapping front. One big reason, he notes, is selfpreservation. "If we're investigated and files downloaded by users are on our swork, we're liable for that." I inc-

baugh says. O 43111



IBM

NEWSMAKER

white, is you

has been prevented to CIO at the in spein with Jean Complete about the to of IT at the producer of con-

Your IT staff comms urned for each o torps company. The core, 43 people, are in Rateigh, and the rest provide local support to the divisions. The intra structure we've put in place, the [J.D. Edwards, now PeopleSoft] products and ERP system we've chosen have eventhing we could with peckaged ere, and we customized as little as possible. The objective has been to keep the costs and burden of IT down

Are you all relief out? We kirled off in November 2000, and we just finished

experimenting with it at some of our quarry lecities, where getting hard wire out to a quarry can be difficult. We're using a lot of VPN technology.

How is that working out? Very wolf, it's a good, low-cost alternative. We have 340-plus locations throughout the U.S. Nove Scotie and Rehemes, and we get into some rural, remote areas where we may have set five peo-None at a location. To put in a full frame-relay network connection is not

of Not very much: The ion was a recognition of the nce that IT has within the co and somewhat a recognition of the major transformation we've made over the last three years. The accreclustry has largely been a low

BART PERKINS

Behind the Eight Ball

HE SAFEST OUTSOURCING OPTION has been, and continues to be, the large U.S .based operations such as IRM Electronic Data Systems and Accenture, However, these big outsourcers are facing serious challenges and finding themselves behind the eight ball. Newer, smaller firms have changed the rules and are forcing the big guys to play catch-up. The new entrants are stealing business by offering dramatically lower prices, thus creating a price floor against which the big companies have to compete.

There are three main reasons for the price differential. First, the upstarts can undercut traditional outsourcers' prices because most of their technical staffs are located in lowercost countries. The price difference is enormous. often as much as \$180 per hour vs. \$25 per hour. But beware. Quoted rates don't provide a true apples-toapples comparison. Be sure to calculate the total cost of outsourcing, reflecting all the costs of managing an offsbore outsourcer. Even after proper pricing adjustments, the difference

Second, the administrative costs at the newer firms are much lower They've designed their processes from the start so that as much administrative work as possible is performed offshore. For example, at one company when expense reports are submitted, they're immediately scanned into a computer system and then sent overseas electronically. The originals and the receipts are filed domestically, as required by the IRS, but the review approval and reimbursement process-

is still bases.

es take place offshore. Third, the management structure at the new outsourcers also costs less

since a high percentage of their managers are based in the same countries as their technical staffs. The price differential is even greater in the executive ranks

In all three cases, lower wages mean lower costs, and the new firms are willing to pass a large percentage of these savings on to their customers. Historically, the big outsourcers have resisted going offshore for similar savines in order to protect revenues and profits. Forced to do so now, the question is how quickly they can

adopt some of the newer entrants approaches and use more offshore labor. But there are complications.

If the big outsourcers use cheaper offshore technical staffs, they will have to share the savines they rean with their customers to remain competitive. The resistance to doing so isn't merely greed but fear of affecting the stock price, since lower billing rates result in lower revenues and earnings. It takes a lot more business to get the same revenues when aver age domestic billing rates are six or seven times the going rate for offshore work. In order to keep revenues stable, the big outsourcers must find a

great deal more business to cover the gap. This is an enormous undertaking in today's economy.

In addition they'll have to reduce their administrative costs, which will mean re-engineering many of their administrative processes. This is time consuming and extremely expensive and presents yet another hit to the

Plus, they'll have to address their high-cost management structures. In order to reduce management costs, big outsourcers could conceivably lay off high-level executives. Moreover, if growth stalls, they won't be able to dangle the carrot of promotions in front of top-notch staff members. The impact of this will be delayed. but significant

Exactly how all of this will play out is unclear. Over the past few years, all of the big outsourcers have quietly begun to hire — and invest — in India, China and other lower-cost countries. Unless stopped by legislation or political unrest, they'll continue to expand their offshore staffs.

Each major outsourcer will likely address the resulting problems differently, but any solution is likely to create a great deal of internal turmoil. Some U.S.-based outsourcing units will probably spin off from their mother companies, deciding they're better off without corporate overhead and corporate angst. The boutique firms they create will provide further competition. Meanwhile, watch the big

players for restructurings, reorganiza tions and fluctuating stock prices. Buyers who are currently using or negotisting with the traditional outsourcers may want to keep contract lengths reasonably short and build in flexible pricing terms. This will allow buyers to take advantage of future price drops as competition intensifies O 42972

WANT OUR OPIO

MAGAZIAN FOR

HFF

www.ing Supplement IT Careers: Projected Hiring Surge Drives Online Learning

While no one expects a replay of the hiring craze of 1999 and 2000, most business leaders are forecasting an increase in hiring for technology workers in 2004. The surge will demand a cross between sophisticated technical skills and business intelligence, according to staffing and professional development leader

There are two very different needs in terms of ongoing learning. The first is business knowledge and expertise, which most universities are poised to provide. Suzanne Gordon, vice president of information technology at SAS Institute. says that in research and development

and consulting, employees need advanced degrees in computer science. statistics or operations research There also is a need for the cross section of business know-how with technology - such as combining an information technology or

computer science degree with indepth knowledge of economics. financial services or the healthcare industry. Again, schools and universities are best poised to provide the advanced study that a technical professional needs to lead development and implementation of projects that respond to a

The second area of study focuses on technology but with the add-on of understanding people. would tell them to take courses and focus attention on hardcore computer science," says John Vlastelica. director of recruiting programs for Amazon.com.

"We tell engineers to learn to view technology not as an end in itself, but as a means to an end, which in our case is delighting customers.

Gordon agrees, saying that her IT employees tend to be life-long learners. "We hire people who love to learn technology They do that through our in-house training, but also by learning on their own. These new technologies aren't usually available through universities *

That's where online resources become important Scores of companies and institutions are providing certification for a wide range of skills, from Net to Java to XML. Hiring and management leaders also want employees to gain certifications in such areas as technology management, project management and security

"Education is just one piece," stresses SAS's Gordon. "Some people have an innate ability to manage projects and people. Others need to learn." That's why she includes leadership in her list of learning priorities - bringing diverse people together to discuss a common situation or business problem, understanding the situation from a variety of angles, and then translating this into requirements that enable users and highly

technical developers. For more information about IT Careers advertising. please contact: Nancy Percival

Vice President, Recruitment Advertising 800 762 2077 500 Old Connecticut Path Framingham, MA 01701 Produced by Carole R. Hedder

grammer Analyst. Sought by glawood Colorado computing impatry to work in various entopoled ocumens throughcompany is work in vancius investigated incremen brough tool the U.S. Duter: Analyze prim ferrelop, text and cou-ment company program studies in communication pro-grams. Evaluate user require grams for her and require ments for new and recibiles pre-grams. When specifications. in the property of the control of th

specific business problem

PREASE ENGINEERS AND A COUNTY OF A MONTH COMPANY OF A CONTRACT OF A COUNTY OF

DM IT Consulting Firm seeks Project Manager for the Inghostological Service promotes Immonistical page about a seeks morror system piomeration of tea system empirementation of new system, segrate of mannerstonce in insure the Caledt system is profitablishowing comety. Man-say Bachward in these Engine says and 3 years in policyla medical entire installing working annerstones of the Trypect. MS (Sunnear Professional wars, of heart 1 Averagence ETP years). wee or Vesser) and previous rulling exp. Travel ra-umes to Skyle internation consion. 7007 E. Sprays.

OH IT Consultion From season

The street and the street of t intribit, completence within the required lives from an of per-mits remarkation assumes and famility. Provide interfering and direction to project learns and client soft requiring interfed. Privacy and Security. 2 or more accounts of the complete and permits and complete and permits and complete and permits and complete and permits and complete and learning and permits and complete and permits and permi Commencial information Development of the Commencial Information and Parks a

Spilmer Analyst: Analysus (Spilmer Analyst: Decoders) (Spilmer Analysts) (Spilmer Analyst

Parpurements Beche degree" is computer som MS, organization or selected plus 5 years of experience systems/applications down ment and/or testing. Ex-tence with Unix and ECC.

of Pice and Pice and

modelity and some source of the control of the cont

is the place where your fellow readers are getting a jump on even more of the world's best jobs.

> Now combined with Career Journal.com. you have more jobs to choose from.

www.itcareers.com

IT Careers Wants You!

Take the hassle out of

iob searching and

check us out at

www.itcareers.com

Today, more than ever,

the right skills fuel the

new economy and IT

Careers wants you to be

there. Check us out at:

www.itcareers.com

wer Progen and JavaScript, while unemangement incompose, suphout the US 1 day 40 et. \$71.363yr. Pleaser mail arms to Worldons Develop-in Programs, PO Box 46547, wer CD 80302 and refer to the company of CONSTRUCT.

Just point your

mouse to the world's best

IT careers site powered by

Careerloumal.com

Find out more at: itcareers.com or call (800)

762-2977

for their material day MS visits dedged VS 30 SQL Server 700 ONN + P. TO ASS & CE Read Heathcare and Contaction &G to C'Ellinson Burn Adm with yes once for or lover & 3 en esp for a promise we cell Sent recurses to HT Intols Software Setumore by Mr.

Brader Avenue St. NY 18314 National Administratory Readed Seeking Qual conditions now maken RS or enery andler out with exp. Clean Cert Design lesso: & Cart Novel Engs ets regt or in the sit eng will include 1 or working euro & net to Atm III

1 Westween So AS tues San Jose State (Avv.

The new itcareers.com

and CareersJournal.com

combined jobs database

can help you find one.

Check us out at:

www.itcareers.com

or call: (800) 762-2977

oroutiams. Systems Analysis, unaffled: cardistrass must pos-ee MS/85 or equit andor via exp. Some positions, come I y or may SAP equi-ciden module. Work with 3 of a following SAP ABAR 30A, about Crasse C++ Fluid morries & references to altry SAP uthong Form

etcr's regree or equivalent and one year expenence in the pri-offered Al prestrong the private

regulars Seating qualified relicities for service and ma-sel IT professional positions hading Programmer Assesses

SR FROOGRAMMER AMALYST to things develop the and recitions as the products to recipionary size to be a produced to the produce

& at least 1 yr ang in at above technologies, skills & leins Will accept Master's wi2 yrs aug at leas of Berhalor's wi5 yrs aug Apply to Palayakar Co Inc. 1851

it careers

IT can ers.com Medical Imaging Software Engineer - Must felies M.S. in Computer Sommon or Bio-medical Engineering To pertu-pate in the research shift devi-sion in the company's new 20 image depter product, Computed Tomography Laser Emiser Imaging System (CTLM).

Will be responsible for one

enterface some-agrade functions of entry segred acqueon was and pel

construction, and pales on. Will have the ad-

PRODITIONARIA REPRESENTATION PRO-TINNE THE TIME THE ADDRESS OF THE TIME TO THE TIME THE TIME

ompany's subware developed in the control of the co

Systems Engineer

paggroup were Engineers in Lincroft, or design, develop, code leut implement web applications

and resided Java Incheses

i (JDIIC JRDI & JARS PIP and wnopws socket ne-turn technologies and com-

roung technologues and con-ment development tools such COM COM+ and Java and in Solans and Linux envi-

ments, that web approximation of the same comments are same and same and the same a

representation server 8.1 com-ISES technologies Jove an ISE-- programming language 1 denotes data communication

modern einstalten s einig in Linux einveck leg MS Outlook cale

em using COO saids \$5 e

total programmy respen-eers are as Sethways Eng prompt consciousless. benut ton menuc.

in the following codes include AD-COMPUTER-122668R sys Inc. PO Box 549248

de 160, Walham, MA, 02454 All: FOR

toms using COO sales (85 or top, Sc. or Eng. 5 or pos

strates and

apple

Mercotin Corporation seeks or sequential systems angular to develop and support the other lattice for his control of the significant and developed Control of the seek of these and formation of years with sure and formation of years with the formation of the seek of the formation of the seek of the seek of the formation of the seek of the seek of the formation of the seek of the seek of the formation of the seek of the seek of the seek of the formation of the seek of the seek of the seek of the seek of the formation of the seek of the seek of the seek of the seek of the formation of the seek of the s technology and architecture experience with a territority in Jame toward technologies, LRR, XML, Java, EJB and relations

ATG Cyneny cetor. Des Morres, Inwa

Send cover withir and recurre to N Rogers. Merectift Corp-resion Selfing Services/Dept. 388, 1718. Lecuril St. Den Maries. M. 50309-3023. Fax 1515: 284-2858. EOC. Meredith

COMMITTEE CONTINUES AND ADMINISTRATIVE CONTINUES AND ADMINISTRATIVE PARTY DE DOMESTION DE CONTINUES AND ADMINISTRATIVE CONTINUES ADMINISTRATIVE CONTINU Subsure Engineers in Linguist. Multi-disagn develop, code, leed and increases. implement with appropri microton debyand administration and secure secure services services oftem applications using EE and related Java technolo-in (JDBC JND) & JND; P^{REP} and windows accled rel-ring bechnologies and com-less development tests out DOM COSM- and Java II DOM DOM- and Java livers in Seiters and Lines envi-ionments see wis applications may youse Cafe saids and seitory them on WebLogo-policitien Server &1 sang JEE technologies: Java and CP-- programming languages or dennine data communication

of motern amounts when ung Sc or Eng. 1 yr po ung Sic er bing. It ye pem ethalis progressively respon-ne work eup as Software Eng or prinned consideration. buseds stored of the fellowing codes recaded AD-COMPUTER/12/20584 normal your resurred CV with the observing sooms included ACD COMPLITER 1234 IBR Average IN. PO Bins 540348 Soins 106 Northson. MA. 02454-0248 Suite 150, William MA, (2454) 8346 FOE STANDIN CONTRACE END.

SERVICI SALEMANNAMA.

regreent News.
Regree in Computer Science or
Engineering disciples, or
sciolity related face with for
resignetly response

Computer Programmer reviews for IT Development and Committing Fursi located or Ceder Popints IA. Job doller notice form against a lateral notice the dose approvision of monter lateral members, lagar sender and project logical. states in the investigation in missistation and reservance of inter computer software appli-ations using SAP JAVA. CTAL Websige Applicant must seve a Bannatura Dispres of Computer Science Mathemetch or Engineering or tirrup convisiency Approach Mus-ews 2 pm eep, in SAP JASI ITML, Weekopi, Mos-Fri, D.O en to 6.00 jins. \$60,000.009y in to 6.50 just, \$60,000,000 upt have proof of legal authorities are in the US. Sec me and once where to have whose Center 800 7p. St Cedar Rapets, 1A 52436 use rater to Job Civil 101620 Employer pa

no enverage one & scalege; o not & externer ones. December of & external orgs. Determine I organ alternative activitions. I stated benefits by meet react log. M&A. & 5 yrs. any or pt Armel or 5 yrs. any consulting or ments: month. Esset in adult selected vise y unit no selected vise y unit no and a set are un bed all

regel and application of such content Solutions should not enti-based nitrovals or port eastern progress, content so ris, condensive margin & erg, collebrativo imperitar & e-tementoj tech Marci Nove abblij vin contrar & negosale el al trienti. both informa & estamat to orgi se gi indiccit), del franki, salary commente vinsip. Resources to IT. Cereani, 500 Old Conn. Path. Francaphim. 864 OTEO: Seu el

ersor Programmer/Analyst

Parellere Cossements Coveyage (applications in mindle operal projections of manifest operal control according to address member and projection of control according to address control according to control according to print and system design process development specifications and system design process development specifications from May safety as president development of section of the process development of section of

accept a funding degree evalual ed by a recognized authority is equivalent. In A. Saubaton

equirelect is a hackwise, relegion Maril In writing in his steeping Maril In writing in his steeping Maril In writing in his steep Proposed in the Steep Well Proposed in the Steep 45 Steep 1000 to 1000 to 1000 Steep House Station, Augusta Marine, 04333 (Odd Presse who to Jan Order #62750 for Programment Analysis.

Elect & Comm. regs Ser ducine make in December

PO Bux 79056, Charles MC

love GA 20339

Sy Guather landitions must send resurtes in imaging Cognesic Systems Inc. Trans First, H.R. Manager 8531 IVW 18th Court, Phanagion, Fr 33313

PROGRAMMERWALYST INCORPANIET VANALYST OF receivers in environ deeps, develop, implement and less application senhaure using Oriccis, Developer 2000 Miscal Benes, 500.4 POLOS, 500.4 CF+1, Part CGE Seek Society UNIX and Thomas patients. Hocumy 85 degree of Contraction of the companies and the companies of the companies processing the companies of sequences on the after the companies that companies are the companies of the after the companies to the companies of the companies to the companies of the companies that the companies of the companies to the companie

with that 2 yes exp using HERMON Provinced 2.4 Toron PS Manus Assessment Super red on setting rements to your and other within the U.S. C SQA Sure. Ottool Security equired Competitive of Maret Apply by resume luchakers: Revoto echnical Services, Inc. SQR are 8.5 C/S or English Software Solutions, Inc., 3250

Progressor Plany Ste 1900. quirements Black pres - 2yrs sup in OS 1, predictivity ages, 10 At productions age, 100mm, teaching & printing Dusley, demander WebNT sons & east-strates (LAWWAN) using SMS sintegerment local Develop & and the Automation scope, as with & Visual Basic MSS cooks distributed for MSS cooks distributed for MSS one in sector for second of C professionals with min 2 vin exp comp or least the following states OOAD using UM ont Intransi-Egaed traveled; seen in HTML & Jave Asset in transitioning, deploying, use swring & traveleshooting Indexing Resonal Trois J2EE Sech Service - Onesta roblecture and Web Server rest on rethern's same & us Report on retweek some it use assistacion. Rencators with USA pomote Atraciva com larg. Resumes in Suca Labandhar, Computer Wars house Assinciates. El-Serviceopes, etc. Condition mathewall Star M.S. or O.S. o Engly. Please send recurses to

IT Contents
COM5Y3 is an established IT consuling firm that serves leading carporations sociating ITs of the Fortune 500 Web COM5Y5 you get Expenses Sensitis. Additional Companions and restartals are Semelis. Additional Compen-tation for referrals and Professional Charledges with training and assignments to stopy tips of the formatic of tech-nicing. With 20 affaces, we need the services of segmented con-sultants somes the US.

- Computer Programmers
- Programmer Acasysis
- Systems Analysi
- Software Engineers
- User Support Specialists DEAN Business Analysis Prisesi Leaders

Submit resume to COMSYS 3330 LBJ Freeway Suite 505 Dalas, TX 75234 www.comsys.com Fast 972-960-0914 EDENATION

sheits Analysi needed to feware Development. Barrie & BPO few located o rington. YT Jes dute Local Analyse design down Local Analyse design down mouter software applica-tory and the common of the experience for cleme to case recommon few clemes to case recommon few clemes to case CONDUCTE SOftware Register, ConTroughtur the seat closed: Bill
term Jahl (JACC) APPLIA. In
term Jah

We have stream openings for Pregionales Analysis conPregionales Analysis concitizens used \$50.4 in Artific. or Seventiers.

50.4 in Artific. or Seventiers.

50.4 in Artific. or Seventiers.

60.4 in Artific. or Seventiers.

60.5 in Fregioners, and con
former frequency and frequency

60.4 in Analysis, and frequency

60.4 in Analysis and

60.4 in Analysis

Entire until Orscie Mireros.

Bullet Informatics Mrs Edu-Rill

Bullet Informatics Mrs Edu-Rill

Free Communication of the Communication

the less amonomies to you grow the less amonomies to you grow to

Analysifrogramms. Dates Analysifrogramms. Dates

Wass killed out

AJILON CONSULTING

oro Proyumes ws. Distant

Senor Web Support Pro-cursors for Internation Company or Ecoton Main-politin artis. Self-requirement the same age of the same Hotels 4 Renources named Street E

Check out our job in the combined na efican, planta ven cur webute a CareerJournal.com

Computerworld • InfoWorld • Network World • December 8, 2003

Business Objects has an open-ing for the position of Sr Comunitarit to be based out of our Atlants, GA office. The posi-tion requires a Bachestrit or for-sign degree aquivalent in Computer Science, Mechanica. Engineering, or related, of Sorbiers Analysi in System Detabase Administration February on F

Expression ma., models 1. Secretal Depart volating Foundation Architect and Administration 2. Virt Administration and 3 Buseness Objects. Webberlingmen Arriv-ted and Administration 1st apply for a position, value or automation of the application of the apply for the application of the apply of the application of the apply of the application of the applicat Detabase Administration Cotabana Administra fluidans, VT & various unar potad chara locations. Ad-otar & coordinate cus

er & coordinate custo sole ribishase en RAC. De vication Data Minim ns environment. Physical proof detathese design. Den ine impact of detates sorges on network & refi langue, or whose cycle propi langue, or whose cycle propi angue. transformation using JB JAP KM, XSLT & Wareholder alder Fire, Bechelor's Button Rine, Sechelor's of Compoter sciences or Engine serving or Matter or Rettikit2 or exp. or job sifered. Sin 854.000 by all Insues, Sen resume to Ann John Mc 837507, PO Box 688 Manageser, VT 08001-5408

We seek exp'd IT professions & Functional Business Con ducts ! Accords with min 2 um ess in business emdelos, inter ective environments, etc. use Avent 456, Copres stills formation 47. Europe Ones Deb. DWS One BIR HE RS CR. BIS ARM or MIS or Economics read, Sen seumen erry to Paramou Software Solutions, Inc., 336 Rosewood Pkey, De 1500 Arierts, GA 20338

Massachuseth 02148 or by te-(781) 360 5427

How to Contact

We invite readers to call or write with their comments and ideas. It is best to submit ideas to one of the department editors and the appropriate beat reporter.

Marytran Johnson, editor in chef (508) 820-8179

Dan Senant, Sout-office 2007 Craig Steelman, assetsed More editor (S26) 620-620 Chair Bette, Festives, ester (20) 201-041 Peterses, Sectionism, enters 506 629 7729

REPORTERS ds, mittle computing/weeks. Intel®Co. L health care 505-65-309 Miles, referring retwork spilore management.

AGO 600 600 (945) 569-5630

1500 E03.00% DECEMBER OFFICE ASSESSMENT (00 40 6M Money. We private behaviores (300 620-678)

2000 800 800 2000 800 800

(750-30-201 Andrews Wagner, corporate security/proper cours. (200 SSLAW) PRINCES PRINCES Tedd E. Males, promising years, Linux

-Mark Hall, Opmers action (503) (49, 758 Front Hopes, soner tree polymer (500 252 cm) FEATURES. ing, speed provide edity _000 820-800s Debort L. Mitchell, sever editr 500,600,607

Mark Hall, other at large 000 20 100 Gary II. Anthon, retired communities (720:536-623) After King, natural consequential (900 SIP-708) COMPUTERWOOLD.COM

Shares Mackles, motograp editorisation (100):420-4201 Non-Minute automorphism (500 (50 (5M) Market Probate, print editor at horse Contracts CTT Book Roses, e-mai respiritario los edur al lores. (Sale 200-200) Bank Wangs, etwork of freder 1900 pp. 1900 pp. 1900 Pater Smith, Very County and County of Smith Sanday, Mark Marine contact description

RESEARCH Kools, transitiveness Wheel, when the process

COPY DESS Junio Cable, representative action and property and prope

- (506: 820: 820) But Range, Montes Sumbatura, contract convolutes.

DRAPRIC DESIGN April E'Comer, seasons at discou Arile Sales, people discoper Senia Catall, project conductor John Electron, contract

000-100 ocu

GINISAL INFORMATION

PANIES IN THIS ISSUE



Microsoft Loosens Policy On Intellectual Property

Says anything in its portfolio could be available for licensing

BY STACY COWLEY keet week unveiled a new technology-licensing policy that it said signals its commitment to working with other condors on intellectual property swaps and is intended to drive interoperability

and innovation Macrosoft will exeste licensine programs to offer access to a broad range of its intellectua d property including conv. rights, trademarks, file formate and schema, software technology, and Microsoftdeveloped standards specifications The company also introduced programs offering technology and patent licenses for its ClearType technoloex for improving the readability of text on LCDs, and for its FAT (File Allocation Table) file-system storage format.

Some of the licensing programs will be royalty-free like the Office XML schemas Microsoft began offering developers last month, executives said. Others, like its ClearTene and FAT programs will curry fees Microsoft's new licensing

approach is unrelated to its antitrust settlement agreement with the U.S. Department of bustice and its oneo ing skarmish over the same issae with the European Commission, according to Brad Smith, the company's general counsel. "We felt it was important to take this step, based on our strong dialogues with a number of other companies in our industry." Smith said

Joe Wilcox, a Washington based tupiter Research anahat called the new policy an important first step" for Microsoft as the industry's most notorious proponent of proprietary technology edges toward a more open approach to

product development. "Traditionally Macrosoft has been very guarded about its lintellectual property). Its approach has been to try to differentiate itself from others with fit1" he said. "I think what you're really seeing here as much as anything is evidence of the changes going on

within Microsoft Anything in Microsoft's portfolio is potentially available for licensing. Smith said. 'Access to and exchange of intellectual property is really

essential to the continued Continued from none I

HP Blades larger and larger systems with the same amount of techni-

cians," Northy said Likely desktop replacement condidates are more who arimarily use Windows and Office and who don't have a lot of custom applications run-

ning on their systems. Although notabook users tend to be outside of the tanget market for thin elients, those who typically use their notebooks when connected remotely to a network can use them to connect to a blade.

The strongest candidates for PC blades are IT shops that have already "mayed our on how much improvement they can get out of their traditional desktops," said leff Groudan, vice president of product marketing in HP's Personal Systems Group. Groudan claimed that comShah, ClearCube's chief mar-The U.S. Air Force's security land Air Force Base in San Antonio recently adopted PC blades from ClearCube after looking at a number of corrors based thin chents, Senior network engineer Rick Johnson

hatima officers

upwith and development of the broader IT industry," he said "Microsoft is committed to licensing its intellectual property on clear commercially reasonable terms based

Windows APIs in Demand

vast array of intellectual prop volumers must often clamor for are those accordance I with its Windows operating system and Office ambientions mite Microsoft allows limited access to inform mon on those peoducts' underpinnings through initiatives such as its tightly controlled shared-source program. Executives were manded

about how expensively the

panies running 1,000 or more

as half of their existing desk-

clients. HP believes a dedicat-

ed blade will offer consistent

dressing a key concern some

Officials at Austin-based

ClearCube Technology Inc.,

that uses Pentium 4 chips.

said that more than 500 cus-

tomers have adopted its sys-

tems. HP's decision to com

note in the PC blade market

"validates this whole PC blade

computing category," said Rai

which sells a PC blade system

more book but thout come

based thin clients he said.

levels of performance, ad-

too systems in favor of thin

desktops could scrap as muny

company might consider expanding its Windows- and Office-related licensing "We're aware of the API issue" said David Karfer Mirrosoft's director of business stead

cut for intellectual property. "West like to improve informs. tion about the ABIs that are alneady available, and then we need to use what poonly east Clearly, to the extent that people are still asking questions about them, there's interest."

Microsoft has been working for nearly a year on develop-

SAMPLE LICENSING FEES

25 cents per unit

said the blades provide a desktoo experience that's indistinguishable from that of a fully loaded deskton PC. Moreover. the server-based options typically required additional training and didn't necessarily sunport peripherals such as card

readers, he added. Improved security over traditional desktop PCs is a major

proson why military and in-

ing a clearer intellectual property policy. Smith said, pointing to the company's recent hiring of Deputy General Counsel Marshall Pheirs as a sign of its commitment to expanding licensing. Pholos will manage Microsoft's intellectual property populatio and field requests for access Although Microsoft will

charge for some of its licensine arrangements, the company doesn't expect the new programs to generate significant provide "That's not why we're doing this," Smith said. Wilcox said he sees the new

licensing approach as a sincere effort by Microsoft to play nicely with others in the industry. Steve Ballmer, now almost four years into his tenure as Microsoft's CEO is more interested in industry collaboration than was his prodecessor, Bill Gates Wilcox said O 43342

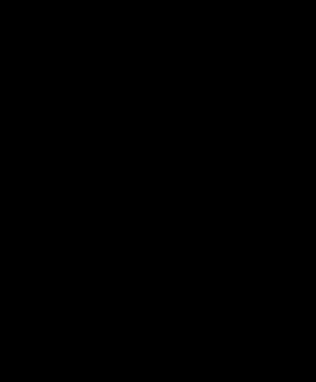
Couries writes for the IDG News Service.

telligence groups have been early adopters of thin-client architectures, analysts say. And it's a need that may also drive private-sector businesses that are struggling with patch management to look more closely at thin clients Security "was his for us." said lohnsen, "What really sold

us was the ability to manage the computers centrally. Although HP sees a large potential for its PC blodes the reality is that thin-client systems, most of which are server-based, constitute only 1% of PC shipments. Market research firm IDC estimates 2003 thin-client shipments

at 1.45 million units and forecasts 20% annual growth to 3.3 million units by 2007 IDC analyst Bob O'Donnell said HP's move raises the profile of an industry sector dominsted by small companies. "The thin-client industry needs a big player like HP

behind it," he said. O 43336



Microsoft Loosens Policy On Intellectual Property

Says anything in its portfolio could be available for licensing

BY STACY COM: EY ICROSOFT CORP. veiled a new technology-licensing policy that it said signals its commitment to working with other vendors on intellectual property swams and is intended to drive interoperability

and innovation. Microsoft will create licensine programs to offer access to a broad range of its intellectual property, including copyrights trademarks file formats and schema, software technology, and Microsoftdeveloped standards specifications. The company also introduced programs offering technology and patent licenses for its ClearType technology for improving the readabili ty of text on LCDs, and for its FAT (File Allocation Table)

file-system storage format. Some of the licensing pro grams will be royalty-free, like the Office XML schemas Microsoft began offering developers last month, executives said. Others, like its ClearTyne and

FAT programs, will carry fees. Microsoft's new licensing approach is unrelated to its antitrust settlement sereement with the U.S. Department of lustice and its oneoing skirmish over the same issue with the European Commission, according to Brad Smith, the company's general counsel. "We felt it was important to take this step, based on our strong dialogues with a number of other companies in our industry," Smith said. Joe Wilcox, a Washington

based Jupiter Research ans-

lyst called the new policy an "important first step" for Microsoft as the industry's most notorious proponent of proprietary technology edges toward a more open approach to product development.

Traditionally, Microsoft has been very guarded about its (intellectual property). Its approach has been to try to differentiate itself from others with fit] " he said "I think what may've really region been as much as anything is evidence of the changes going on

within Microsoft." Anything in Microsoft's portfolio is potentially available for licensing Smith said 'Access to and exchange of intellectual property is really essential to the continued

the broader IT industry" he said. "Microsoft is committed to licensing its intellectual property on clear commercially reasonable terms based on industry norms."

Windows APIs in Demand Although Microsoft owns a vast array of intellectual proerry, the technologies other de-

velopers most often clamor for are those escociated with its Windows operating system and Office applications suite Microsoft allows limited access to information on those products' underoinnings through initiatives such as its rightly controlled shared-source program Executives were quarded about how extensively the

panies running 1,000 or more

desktops could scrap as many

as half of their existing deak-

cliente HP believes a dedicat-

ed blade will offer consistent

dressing a key concern some

Officials at Austin-based

ClearCube Technology Inc.

that uses Pentium 4 chins

said that more than 500 cus-

tomers have adopted its sys-

tems HPs decision to com-

which sells a PC blade system

users have had about sever-

based thin clienty he said

levels of performance ad-

too extrems in favor of thin

company might consider exnanding its Windows and

Office-related licensing. "We're aware of the API issue," said David Kaefer, Microsoft's director of business streeear for intellectual property ready available, and then we need to see what people say.

"We'd like to improve information about the APIs that are al-Clearly, to the extent that people are still asking questions about them, there's interest." Microsoft has been working for ocarly a year on develop-

News Service.

said the blades provide a desktop experience that's indistinguishable from that of a fully aded deskrop PC. Moreover. the server-based options typically required additional training and didn't occessarily support peripherals each as card readers, he added. Improved security over traditional desktop PCs is a major

reason why military and in-Blade Runner

ing a clearer intellectual property policy. Smith said, pointing to the company's recent hiring of Deputy General Counsel Marshall Phelos as a sign of its commitment to expanding licensing, Phelos will manage Microsoft's intellectual property portfolio and field requests for access.

ny doesn't expect the new programs to generate significant we're doing this," Smith said Wilcox said he sees the new licensing approach as a sincere effort by Microsoft to play nicely with others in the industry. Steve Balliner, now almost four wears into his tenure as Micman®'s CEO is more interested in industry collaboration than was his prodecessor Bill

charge for some of its licens-

ing arrangements, the compa-

Gates, Wilcox said. O 43342 Cowley writes for the IDG

telligence groups have been early adopters of thin-client architectures, analysts say. And it's a need that may also drive private-sector businesses that are struggling with patch management to look more closely at thin clients. Security "was big for us."

said Johnson, "What really sold us was the ability to manage the computers centrally." Although HP sees a large otential for its PC blades. the reality is that thin-client systems, most of which are server-based, constitute only 1% of PC shipments. Market research firm IDC estimates 2003 thin-client shipments at 1.45 million units and forecasts 20% annual growth to 3.3 million units by 2007. IDC analyst Bob O'Donnell said HP's move raises the pro-

file of an industry sector dominsted by small companies. "The thin-client industry needs a big player like HP behind it," he said. O 43336

Continued from page I **HP Blades**

larger and larger systems with the same amount of technicians," Norby said. Likely desktop replacement candidates are users who primarily use Windows and Office and who doo't have a lot of custom applications run-

nine on their systems Although notebook users tend to be outside of the target market for thin clients, those who typically use their notebooks when connected remotely to a network can use them to connect to a blade.

The strongest candidates for PC blades are IT shops that have already "maxed out on how much improvement they can get out of their traditional desktops," said Jeff Groudan, vice president of product marketing in HP's Personal Systems Group. Groudan claimed that compete in the PC blade market validates this whole PC blade computing category," said Rai Shah, ClearCube's chief marketing officer. The U.S. Air Force's security forces beadquarters at Lackland Air Force Base in San Antonio recently adopted PC blades from ClearCube after

looking at a number of serverbased thin clients. Senior network engineer Rick Johnson

PA ABM





SEARS

SAMSUNG

FRANK HAYES . FRANKLY SPEAKING

Talk Is Cheap

ORE THAN 300 IT executives were at the National Cyber Security Summit last week (see story, page 1). About 97% of them were from IT vendors. What they got from Homeland Security Secretary Tom do more to secure cyberspace or else they just might be subject to government reculation.

Let's translate that: There won't be regulation anytime soon. Companies that aren't IT vendors aren't players in this game. And if your company wants better IT security, you're on your own.

Does that sound like a cynical assessment? It's oot. A year after the first drafts of "The National Strategy to Secure Cyberspace" began circulating, we have a pretty clear picture of what the U.S. government is and isrd willing to do to beef up IT security, both in products and oot the Internal.

The feds are willing to do a lot of encouraging. They're not willing to do much enforcing. Compare that with what the feds have mandated for non-IT security: the airport checkpoints, the special registration programs for foreign nationals, the increased surveillance, the gua-toting guards. Whatever the effective

ness of these efforts, there's no doubt that the government is willing to take a strong hand when it comes to physical security. Or compare it with what was mandated in the face of Y2k: corporate disclosure of the risks

and costs of Y2k in financial statements filed with the Securities and Exchange Commission. Real concern translates into action. But we're not actting that when it comes to cybersecurity.

not getting that when it comes to cybersecus What we're getting is just a lot of talk. There's nothing wrong with Ridge talking about the cybersecurity problem. It raises

awareness. It encourages people to kick around ideas. It signals that cybersecurity hasn't completely fallen off the radar.

But a serious, active cybersecurity push? It won't happen.

In fact, we aren't even likely to see the U.S. government use its formidable IT purchasing power to goose vendors along toward better security. In government IT, as in the private sector, cost is an issue — it's often the issue. And the lowest bid will always have an advantage over improved security.

And in practice, neither the government nor IT vendors even want to bear from corporate

IT vendors even want to bear from corporate IT about security. So we are truly on our own. What can we do? The usual, of course; beef

What can we do? The usual, of course: beef up patch regimens. Test proactively. Turn on security features. Turn off other features that aren't needed. Encrypt. Subnet. Limit trust between machines wherever possible. Check logs at every level, from intrusion-detection systems down to individual users? Possible.

Then begin making a plan to transition to IP Version 6 — one of the few clear action items on the government's agenda.

And then take a page from the government's playbook. As long as all we're gestiling from the feds is a lot of talk, use that talk. Make sure your top brass hear about last week's talkfest. Pull down a copy of "The National Strategy to Secure Cyberspace" from www.whitehouse.gov/pcjbb. Clicelc the seary parts. Start laying the groundwork for a bigger security budget regroundwork for a bigger security budget re-

quest in the next budget cycle.

Talk up security with ooo-IT managers. Underline the problem. Raise awareness. Ask for suggestions. Find out what it will take to get users to support security policies instead of

fighting them.

Theo politic the heck out of your successes when you stop viruses, worms, intrusions and denial-of-service attacks. Let users and management know that the threats are there and that you can stop them — when you have help from users and the necessary resources in

your budget.

It's not the same as having the full, active support of the U.S. government and IT vendors in securing cyberspace. But for now, it's all you're going to get. 6 43283



MARK YOUR CALENDAR!

Join Us to Map the Future of IT

Strategic problem-solving and peer networking with the nation's IT leaders



Conference sessions will cover these critical areas:

- Extending Data Management, Enterprise Integration and Web Services
 Creating a Next-Generation Infrastructure, Reducting Complexity
- and Enhancing Business Value

 Charting New Directions in IT Governance, Regulatory Compliance
- and Project Leadership

Advancing Security and Business Continuity

Computerwooks's Premier 100 IT Leaders Conference is a dramatically different, high impact executive event. Now in its 5th year, this annual conference brings together bundreds of senior IT executives for a compelling series of high-level discussion pane presentations and peer networking activities.

The Fremier 200 TF Leaders for 2004 will be associated and profiled in our Juneary 5, 2004 to 40 Computerworld and honored during a special crementy as the Mater 20, 2005 to 40 Computerworld and honored during a special crementy and the Computer 20, 2005 to 40 Computer 2004 to 40 Co







Jil Marriett
Desert Springs Resert
Palm Resert.

| Calibria

Exchange Innovative Ideas and Strategies with Computerworld's Premier 100 IT Leaders who are: Extending Data Management, Enterprise Integration & Web Services

- Creating a Next-Generation Infrastructure,
- Reducing Complexity and Enhancing Business Value

 Charting New Directions in IT Governance,
 Regulatory Compliance & Project Leadership

Advancing Security & Business Continuity WHY YOU SHOULD ATTEND

WHY YOU SHOULD AT I SINU
An you responsible for mapping the father of your organization's information technology? What to exchange instructive bises and strategies with other top IT executive? Then attend Compatement's Present 100 IT Landers Conference, the ONY conference where you can hear from - and entherick with - Compatement's Present 100 IT I seek.

HENCH MIT - CONCURS MITS LIGHTED TO IT

WHO ARE THE PREMIER 100?

They as striams and a famel wirering if remotives with valuable inscore to have an extrained of a mend wirering. If remotives with valuable inscore to have and ablets to rifer VOI. They are inchnologate who undestand business ments, take included rifer and exit through remotents, and COO, vice premieters of If, devotors of If and business mentages honored and Cooperation of If, the primer to 10 from a value seem of a virtual installation. When you will have provine countries or the heart III business have always deep corporations from you income the heart III business have advanced two corporations from you income the contract of the co

leadership and proven strategies.

WHAT IS UNIQUE?

Charled by Completed orders, this conference offers a radical departure to the standard If evert, while a focus on great data, bein practices and red september from the standard If evert, while a focus on great data, bein practices and red september order langthe from leading user organizations. The mager assessors provide height orders cannot be reduced to the control or the control or the control or the control orders and industry stangers — cach moderate high data color to the interaction of the chinaction of the color or the color of the





Mapping the



onday Keynote Address: om IT Expense to IT Value

about distinction of the matter, formed an element access, Charge from the years, CO file Sounceded a reverse inpant for 1 with 5 termons, surrep, and described an element access of the access and access portrains, before a reverse instancing protection and remarks accessed as accessed as a contract Co-matter accessed accessed and EAP To Despite and Co-marks accessed as 2002. Source instances for the 2002 accessed access



David Bauer, First Vice President and Chief Information Securit Privacy Officer, Merrill Lynch

An Embaryriae Roality Clouds, Service Reporter, Computerworld Balanciae realized with Rhadowski, Service Reporter, Computerworld Balanciae realized with voice believe to accress, to denote "extreme belief" you as you of compile, pathors with free amening realized your believe to design for an embary believe and of committee and office amening or many realized and the countries of the realized believe and of deloted and embary believe to the committee to the confidence of the countries are used as and and of deloted and embary believe to the committee to the college of the countries are used as and and of deloted and embary believe to the committee to the college of the countries are and the deloted and the college of the co



ovaluating Infrastructure Renewal Through Scenariolesed Decision-Making

Delta Air Liene

On the Committee

One of the Committee

One from her for cost of development and intelligence of ill systems is custly matched

matches

In the Committee

One of the Committee

One of

et an enhan propose electrotus evertuar posses, set cipaly sing liding a Tidal Wave of Change: Data Managers interpretas interpretas and Web Services

"Inter INCORDING LOSS INSTITUTES TO THE CONTROLL CONTROLLED TO THE CONTROLLED TO THE

Steel This Great Idea: Audience Participation and Working Session Moderators: Maryltan Johnson, Editor in Chief, Computerworld, and Mark Hall, Opinions Editor/Columniat, Computerworld



Future of IT:

SELECTED SESSIONS



en or Pull the Plug on Them Paul Gles, President of C2 Consulting, Co Columnist and Author of "Leading Gods"

Despite significant progress over the last decade, project access rates are still demails poor. Only about one-tion for of ill in projects are completed accessfully. The cell are concalled completely in finished up talls, over-budget and continues meaning-map functionally. anyon are common many-maps supported approaches can provide excellent information about what More man first from all princip management approaches can provide excellent information shad hisporned, but they've four at producing the falses. In this presentation, that Dan will identify the fire leading information of princip success and about here is see them to predict the lakes prevent problems and emerge a first with the problems and pursues about the second provided and provid



Breakfast Address: Homeland Security: Public/Private Partnerships & The Cost of Fallure Dan Vertor, Serior Reporter, Computerworld, and author of "Black los: The Invisible Threat of Cyber Terroriess"

Cuber reductify is the consense fireward that this supplier the reductify incide previous personal according and other incidents and control and country and count

The Myth of Corporate Security: Why CIOs are Med as Hell and not Going to Take it Anymore

Alan Paller, Executive Director of Resea

More Excuses: Responding to the Demands of Data wacy Laws, Regulatory Compliance and Other Business ndates on Corporate IT Security

nel Moderator: Dan Verton, Senior Reporter, Computerworld, and author of ack log The loseside Threat of Coher Terrories "Black KCK. The Investment restant or upper sentrement.

The source gends to 5000 in terp mentional that done remaps, savenged to halfs with her warrows, agened a few of rembous alterials, table of the remains and reference in which the sentrement of the remains alterials, table to the sentrement of the remains and t

"Best in Class" Project Leadership Lightning Round After paced to all your promittenes and authorize OSA, featuring the most investible, high respect case station last the Promise SO (coppose.



es for determining appropriate security features case that senter executives the of happens

erroton May, Futurist and Computerworld Columnist

ve My Problem: A Town Hall Mostles on Risk Management and Project Leadership

Evening: "Best in Class" Awards Coremony, Dinner, se Recognition and Entertainment How to Ruin Your Life

Ban Stein, Author, Humorist, Lawyer, Economist, Actor and Educator ------



Projektelles Rates	Design 2017 22 2011	der James III. III.
IT God Liver,*	81,465	\$1,786
No Consideration of the Consid	85,000	25,000

IT End-User' Application for Conference Registration

Annual	
COMPUTERWORLD	OPTIONS:
DREMIER	All dallar anounts are Networking Louige in responsibility. Compu
TOTAL	IT End-User
IT LEADERS	Non-Sponso
CONFERENCE March 7-9, 2004	elite afterding who the sale discretion
JW Marriott Desert	** Nondom are encou- fermanum undo struits s'inon-sper

Palm Desert California

Registration questions? Please call 1-800-883-9090 or Email: pt00rsgiftcomputerworld.com
Visit our website at: www.premier100.com/cw1

visit our website at. www.premies too.com/cwi				
OPTIONS: M stills amount-size in U.S. Ands impostation include full approximate services, the Expo and Personnelly Connect made and response. Transportation and solved accommissions are yellow inclinational for the Exposure of Connections and Approximate for any ap	Earlybard Registration (troop lowery 20 2004)	Full/On-Site Registration		
IT End-User.*	□ \$1,495	☐ \$1.795		
Non-Sponsoring Vendor **	□ \$5,000	□\$5,000		
*IT End (burst are defined as from who are attending Computational's Premier (\$0.00 Leaders Conference for directly also and conference spersors and enhancer. As such account operands also directly and does not have 10 purphases of the effective and to the computation are estudied from the 10 the sale processor of Computational Conference and 19,000 (\$0.00).				
** Nondom are encouraged to perfocuse in Computerworld's Premier ICO IT Leaders Conference through spore	antio Deak an evolute by caling La	Leave at 1505-800-825		

Questions about accommodations?

First Name	Middle Intal	Last Name	
Title			
Street Address			Suite, Apt , etc.
Dity		State/Prov	
ountry	Phone Number		Extension
ax Number	E-Ma	Il Address	

Would you like to receive information values the golf outing on Sunday March 787 🔲 No. 🔲 No.

Your business/industry	Your ob trie/function	What is your organization's most measure
☐ Speciation / Little	G G0000Charman Personal	criscal development/molementation
2 Minns (Of This	2 0000	project the war
→ Non-Profit / Trade Association.	2 VPCMTherety	
☐ Medis / Papietona	C 6/1 Decis Merger	☐ Suprect Irrahgenos/Data Monagement
	2 Ohr S/F Disasteer	☐ With Services
	Menatri Superinar	☐ Monic/Windess
Q According	Differ Conscional Reviews	→ Network Inhantucture/Storogram
2 burner	☐ Corporte/Survey (suff	G Secret
⊒ RueForo	Constant George of Other	O Loss
☐ Triscommercación	Countries (separation cease.	☐ Emergance interageout
Wholesale / Retail Inco-company	The one rem that best describes your	
Computer Service Provider	residences in the IT purchase concess.	What is the estimated annual moreum
Afterlang Warteting Public Residons	Anthony for perhase	of your entire organization?
2 Enterprised	2 Approx for bulger	Cl \$10 Bihore
☐ Etucien	2 International	☐ \$7.54cm : \$8.3 50cm
☐ Food Helestry	☐ Exhabitiscompant codums brands	Q \$500 William \$339 Million
3 Goennes / Misey	U Eviluation of products, brands,	13 \$300 Millor: \$400 Millor
☐ Nothcare Medical Services	☐ Mortification the next's particular	Ci Lem Fox SIOC Many
Travel /Nooptalry / Recovarion	Characteristics are proceed by the con-	
Manufacturing (non-IT)	What is your prosequence is persually	What is your proprioation's annual
☐ Automobile	unday by seewa?	IT/IS budget for all IT/IS products?
☐ Temporation / Utilities / Energy		☐ Deer \$1 Febru
2 Computers, Communications or Perghanal Egypment or Software Manufacturing	D DH	C \$500 Mean \$995 Million
AeroBus (Foreits) Februs	☐ Newlet Protect/Compaq ☐ Rivers	O \$500 Maior Septiment
2 Other		C ST Miles - 900 Miles
2 ore	3 64	C T Mary 410 Mary
Number of employees in your entire		C Learning College
organization (ALL locations)	Q thes	Little from \$7 Melon
2 10 con -	O One	
3 5000 ·		
3 1000 9390 3 1000 4399		
J 1000 4 999		

Attendee Profile: (this section must be completed in order to process your application)

Payment Method

Ohack (checks must be recoved by February 18: 2004 capable to Competenced).

Mail to Competenced, Also Pain Maintpussles 500 0ld Connection Path.
Familyoise Mall Competenced State Pain Maintpussles 500 0ld Connection Path.
Account Number of VISA | MasterCard
Account Number of VISA | MasterCard

Expression Date ______
Cand Holder Name
Signature of Card Holder

Cancellation Policy on a fernance province webs refuger:)
In the event of cancellation, the registrant has three options.

1) He of the may substitute province attended for the condenses.

 He or she may transfer this registration to Computerworld's 2005 Premier 100 IT Leaders conference.

Linears commerce.

3) The registration line will be refunded, less a \$250 service charge, if weister holics in ancerned by February 15, 2004.

Please send concellation requests we email to \$100 registromputerworld.com



AMD

The AMD Opteron' processor, superior 32-bit performance with expanded 64-bit capability. It's the only serier processor designed to run your 33- and 64-bit applications simultaneously and without compromise. AMD Opter

The world's highest performing 2P and 4P industry standard servers are now powered by AMD Opteron processors. Get unparalleled 32-bit performance and the ability to transition seamlessly to 64-bit computing.



Leverage your existing investments while preparing for the future. It's one architecture across your enterprise this offers industry leading performance for your 32-bit applications, and doesn't require a forhilft upgrade as more 64-bit applications emerge. It's just another way AMD designs and builds processors with you in mind. For a closer look at the AMD Operon processor, visit www.amd.com/operon

Nerves and muscles coordinate for exceptional physical performance.

@server

Power and coordinate for exceptio coordinate.

Introducing the affordable new IBM eServer pSeries" 616. The human body performs exceptionally, So does the IBM server into for UNIX" The new IBM 68-rever pSeries 616 offers 110% more performance than its powerful producessor, but at one-thrid less starting cost Processiant eSSAPE has everyting fourth-generation POWER4—technology Pics Linux ready? Yes Autonomic and self-heating features? Absolutely On demand? Of course.

eServer; servers for on demand business.

Can you see it? For a white paper on why POWER4+ and more on IBM offerings for UNIX, visit ibm.com(eserver);615

TRM

Notice to the state of the fitness is between the state of 2.50 to a long office (and 100 of 100 to 100 to